VOCATIONAL STUDENTS' ENGAGEMENT AND CAREER OBJECTIVES: ASSESSMENT OF ENGAGEMENT PROCESSES IN NEW VOCATIONAL STUDENTS

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In the literature correlations were found between students' academic successes and their levels of student-initiated, active engagement. This case-study was designed to assess the engagement processes in learning of students when the students first transferred from their academic schools to a vocational school.

Vocational students and vocational teachers were interviewed to determine how the students' engagement processes affected and were affected by their placements in a vocational program. One objective was to determine which engagement processes were the strongest from the students' perspectives as learners, and what the term 'student engagement' meant to them. Another objective was to identify relationships between the students' engagement processes and their placements in the vocational schools.

In recent years, students with educational disadvantages or learning disabilities, and students who were classified as 'at-risk' for graduation from high school had been disproportionately placed in vocational programs. The new vocational students' academic progress and career preparations were noted to be affected because of their opportunities to participate in hands-on learning and work-based experiences found in the vocational program.

Interviews of the vocational students were completed to assemble information about their placements in vocational programs and their career goals. Interviews of the vocational teachers

contained their perceptions of the students' engagement processes and other related issues. Synergistic and antagonistic issues were clarified between the students' and the vocational teachers' perspectives about the students' engagement processes. The methodology also included assessments of peripheral issues associated with student engagement such as students' absenteeism, disciplinary and behavioral problems, the students' socioeconomic backgrounds, and qualities found in vocational teachers.

In the data analysis, information from the students and the vocational teachers was triangulated with the students' permanent records and students' observations to provide validity to the study. The assessment of the engagement processes of new vocational students and the placements of special populations' students in vocational school were identified as important factors in the planning and implementation of vocational education policies.

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PREFACE

Recently, secondary vocational education has come under increased scrutiny by policymakers for not producing 'results' and fulfilling the role of training young adults for employment or postsecondary education. (Naylor, 1989; Keystone Commission; 2001; PAVA, 2004). There has been an increase of placement of at-risk and special populations' students in vocational programs in the past two decades. (Bureau of Labor Statistics, 2004). Statistical analysis of vocational programs in Pennsylvania schools substantiated that a major increase in placement of documented and undocumented at-risk students in vocational programs. The at-risk students enter vocational schools with substantial socioeconomic and/or educational disadvantages, or emotional and learning support needs. Currently, there are a phenomenal 40-50% of 'identified' special populations' students in vocational programs. These percentages of placements may not include the 'at-risk' students who enter vocational programs without identification. (Pennsylvania Department of Education, 2003). The increased placements of 'at-risk' and special populations' students have affected the outcomes of all students who attend vocational programs. The educational outcomes of vocational students, as successful graduates or dropouts, have an enormous effect on how vocational education has been and will be viewed by educators and policymakers.

The importance of identification of 'at-risk' students' needs, especially their levels and abilities of engagement, may be crucial to their positive educational experience in vocational programs. Along with the identification of 'at-risk' students and their levels of engagement, other contingencies, such as funding, teacher quality, curricula and work-based learning also

affect vocational education. Furthermore, these contingencies affect the vocational students' abilities to identify relevant career objectives and prepare for work and/or postsecondary education (Kos & Donmoyer, 1993; Damico & Roth, 1993; National Governors' Association Jobs for the Future, 2003; *Kids Count Data Book*, 2004).

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1.0   CHAPTER

1.1   INTRODUCTION OF LITERATURE REVIEW

As we embark into the 21st century as a global economy, more interdependent on each other as individuals and as societies for our survival, the role of education becomes paramount to the success of the world's future (Hess, 2004; Mandel, 2004). Hess (2004). eloquently identified the need for a multifaceted approach to education reform to address the students' needs. The author stated, "[T]here are many ways to provide legitimate public education" (p. 438). He called our "pinched rendering" of public schooling "counterproductive". "In an age when social and technological changes have made possible new approaches to teaching and learning, pinched renderings of 'public schooling' have grown untenable and counterproductive" (p. 439). This 'pinched rendering' Hess referred to obstructs policy and practice and appeared more devoted to reconstruction and reform based on "new approaches to teaching and learning" rather than the strong 'accountability' reforms (p. 439). As education reforms stagnate in 'accountability' issues and student testing, other countries have progressed towards new educational approaches to address the importance of education to other social issues for our societies (Levesque, 2002).

The relationship between economic growth and jobs, and the ensuing dichotomy between those living in poverty and prosperity has appeared more blatant recently (MacPherson, 2004). Social unrest, dissent, and other conditions may be ameliorated with better education plans here and

abroad (Levesque, 2002; Hess, 2004). Frey, et al. (2001). voiced a concern for American schools

to find a meaningful direction for education.

> In an era when 'globalization' has come to pervade political conversation, it is no surprise that international comparison has become the touchstone for debates over education reforms. As U.S. workers are increasingly forced to compete in a world market, fears have grown that U.S. schools are not providing the necessary skills (p.37).

Hall and Smith (1999) identified how skewed American schools had become in focusing so much

on college preparatory curricula which has excluded many regular education, non-college bound

students.

> [T]he popular education reform movement of the 1980's was primarily directed toward improving the academic skills of college-bound students. Unfortunately, little attention was directed to strengthening academic skills of those students who were not going to college or who were in vocational education (p. 2).

Educators and policymakers may need to reconsider vocational education's place in the preparation

of our students for a global workplace (Levesque, 2002).

Five concepts framed vocational education in the review of the literature. And the focus

of the framework was the education of 'at-risk' students. The questioned formed from this focus

was how vocational education may encourage at-risk students' school retention and also prepares

them for jobs and future education through engagement strategies and work-based learning?

The first concept involved a review of the mission and content of vocational education

curricula by educators and policy makers (Frey, et al. 2000; Keystone Commission, 2001; U.S.

Department of Labor, 2004; Taylor, 2004). The second concept was the identification of the

needs of adolescents from developmental and socio-emotional perspectives, and how the needs of

the 'at-risk' adolescents differed from students not considered 'at-risk' (Levesque, 2002). The

third concept was the recent placement patterns for 'at risk' high school students in vocational

schools or programs (Hall & Smith, 1999). The increased placement of 'at-risk' students in

vocational programs has had a profound effect on vocational education and how it has been currently evaluated by policymakers (Kos & Donmoyer 1993; Water, Marzano & McNutty, 2003). The fourth concept was that despite the apparent disproportionate placement of 'at-risk' students in vocational programs, many vocational students were often observed to develop 'leadership' qualities. Their leadership qualities included interest in their communities, strong work ethics, good interpersonal skills, and regard for their roles as citizens (Nightengale & Wolverton, 1993; Kos & Donmoyer, 1993; *Kids Count Data Book*, 2004). Vocational educators appeared to often positively integrate the at-risk students' emotional/mental, physical, socioeconomic, and educational impediments. This was accomplished with the use of strong student engagement techniques often not as available in traditional academic settings (Student Engagement: Executive Summary, 1994). For example, secondary vocational students who are academically disadvantaged often began to excel in programs which encouraged their interests in a career (Student Engagement: Executive Summary, 1994; National Governor's Association, 2003). Vocational education appeared to provide the bridge between academic success and future career aspirations for students. This was done while vocational educators concurrently addressed the specific educational issues that left 'at-risk' students behind in their educations (van Zolinger, 2002; National Governor's Association, 2003). The final concept considered how academic schools may benefit from replication or integration of the positive educational strategies for 'at-risk' students utilized in vocational programs to promote student engagement and preparation for employment and postsecondary education (Student Engagement: Executive Summary, 1994). This question was addressed after research regarding engagement assessments of vocational students was completed.

The continual 'dilution' of secondary vocational education occurred despite recent initiatives such as Tech Prep, School-To-Work, and Applied Technology. These educational

initiatives focused on society's needs to prepare our students for employment and postsecondary education in the last two decades. Instead, vocational education became, in some instances, 'terminal' placements or 'deviations' from the opportunities for students to obtain further education or training. This 'terminal' status was eloquently identified in the Kids Count Data Book (2004).

> Then vocational education, which is one of these deviations, becomes a dumping ground for students who have missed the royal road, who have not done well in academic classrooms, and who are often disparaged as 'manually minded' or 'tactile' (p. 609).

Lynch (2000) indicated that vocational education was at a "crossroads". He identified a consensus that "much-if not most-of it (vocational education) needs to be reorganized and redirected (p. 4). He espoused the need for all high school students to attend college, "whether they want to or not" (p. 7). The author cited public survey data that led to two somewhat incongruent conclusions about vocational education: "a) The public does indeed want career education and work skills included as critical components of the public high school, K-12, curriculum, and b) parents expect their children to attend college" (p. 7).

The unrealistic expectations of parents for their children to attend college have been overly stated, especially for 'at-risk' students (National Governor's Association, 2003). Lynch (2000). cited a gallop poll in which nearly 100% of parents say they want their children to attend college. He identified how most high school students plan to attend college. He qualified college aspirations in students at the "wannabe college attendance" and compared their progress to those that entered and also completed college (Lynch, p. 8). In 1997, according to the Bureau of Labor Statistics, (1998) about 67% of high school completers were enrolled in two or four-year colleges. This was an increase from earlier years, yet there was a "dismal record for college program completion or graduation" for high school graduates (Lynch, p 8).

A review of other data for 'at-risk' students who were economically, socio-emotionally, and educationally disadvantage indicated that policymakers and educators may need to focus more on high school retention rates. Improved high school retention rates could be facilitated by improved student engagement and more career training for job placement after graduation (National Governor's Association, 2003). Improved student engagement and career training were primary objectives of work-based learning in secondary curriculum for college preparatory students and 'at-risk' students academically disadvantaged (Johnson & Johnson, 1991, Damico & Roth, 1993; Sanders, 2000).

1.1.1 Background and Rationale Of Vocational Education

Four forces which reshaped vocational education were identified by Lynch (2000). They included "the new economy, public expectations of schools, new research on student learning and motivation, and high school reform" (p. 1). The author continued with the identification of six components he believed impacted reform of high school education. The six components included "high school majors, contextual teaching and learning, work-based learning, authentic assessment, career academies and tech prep" (p. 1). These six components required students to participate in learning and were seen as parallel to the goals of career academies, work-based learning, and Tech Prep initiatives provided in vocational education. As vocational education became perceived as a 'terminal' form of education and a 'dumping ground' for students, these goals, in turn, became more difficult to achieve in vocational schools. The students, who did not choose to be placed in vocational programs, but were 'assigned' to vocational programs, were also resistant to "any teaching reminiscent of the "academic track" which career academies, work-based learning, and

tech prep programs all rely on a strong 'school-based', 'academic component' of vocational education (*Kids Count Data Book*, 2004 , p. 609).

The research further indicated that a negative cycle had been created for some students with the development of a dichotomy between the college-bound and non-college bound students. This cycle was facilitated by strong reinforcements that as our children grew up they could not support themselves financially and raise *their* children in a good environment. Therefore, the cycle of negative outcomes continued. The non-college bound students suffer 'triple deprivations. First, they did not gain access to the postsecondary road to education. Second, the students rejected other avenues of success, such as rigorous vocational programs. And finally, when the students' rejected learning because of the negative outcomes, their instructors often lowered their expectations and demands of the students as well (*The Kids Count Data Book*, 2004 , p. 610).

Students 'at-risk' or from other 'special populations' comprised almost half of some of the vocational programs presently. (Pennsylvania Department of Education: Report on Career and Technical Education 2001-2002). Vocational education had consistently tried to meet the needs of these students over the past decades. Students 'at-risk' were often educationally and/or socio-economically disadvantaged, and emotionally less stable. And the lack of proper identification of their 'at-risk' status, proper career placement, and educational interventions appeared to make vocational programs unsuitable for these students. However, it was also evident from research that there was a positive sense of 'engagement' for 'at-risk' students in vocational programs if other considerations about the students' backgrounds were met (McMahan & Portelli, 2004; Fletcher, 2003). These considerations included proper career guidance, identification of each student's needs with better assessment techniques, and adequate educational support for their vocational placements to assure success (Sanders, 2000). Sanders (2000). continued with qualifiers that directed educators

not to assume that 'at-risk' or any students were accountable for their education. He believed "that knowledge and learning are too interdependent to place the responsibility for outcomes solely on the learner" (Sander, 2000, p. 5). A dilemma developed in the placement of 'at-risk' students in vocational schools. While vocational education appeared to provide strong engagement potential for students, especially 'at-risk' students, the independent learning experiences found in vocational schools may have been less suitable for the 'at-risk' students.

Work-based learning provided the bridge between the strong engagement potential for students placed in vocational programs and their possible lack of ability to adapt to independent learning environments. Educators and employers have affirmed for years that there was an implicit and explicit relationship between students who were motivated and committed to their communities and those who exhibited a positive work ethic (van Zolinger 2002; Hairston, 2002). Vocational education often provided students with opportunities to develop these 'leadership' qualities earlier in their educations than students in traditional academic schools. The research validated that for adolescents, the integration of vocational skills with academic preparation encouraged them to focus more on their education. The stronger focus on their education in turn motivated the 'at-risk' students' interests in their communities and the world in general (Hairston, 2002). Most importantly, it was identified that adolescents who are engaged in what they perceived as 'productive' education experiences tended to empathize more about others and also develop more positive interpersonal skills. These accomplishments were considered important for adolescents to achieve to enter adulthood and develop and maintain positive family, social, and work-related relationships. Work-based learning provided the 'link' between classroom learning and students' career objectives. Students were able to envision gainful employment as part of their future with work-based learning. Students correlated positive work-related experiences as a means to attain

educational goals and do not rely solely on academic achievements which they may have been deficient in (Sanders, 2000; Hairston, 2002). .

Sanders (2000) identified how poor and minority students, typically more at-risk, struggle with the bureaucratic school organization that was impersonal and very formal (p. 321). He was a strong proponent of connection between academics and work-based learning for students to succeed (p. 329). However, education policymakers may not have fully valued these fundamental needs of development in our youth, especially those 'at-risk' (Elias, 2001; DeVaron, 1972; Kohlberg, 1972; Donmoyer & Kos, 1993; Levesque, 2002).

To address the needs of our youth, especially those 'at-risk', educators and policyholders asked the following questions. How do we, as stakeholders in education, propose changes in secondary education that address the needs of educating at-risk students? Also, how do we implement these changes so that many students who are being marginally, at best, educated in academic programs receive a more valuable education in high school? Most importantly they asked, can secondary vocational educational remain a vital 'player' for career training and the postsecondary education preparation of our youth even with the substantial shift of student placements of identified and non-identified 'at-risk' students in vocational programs? (Donmoyer & Roth, 1993; Sanders, 2000).

As education continued to change and foci shift, the implications for gains and losses in both instructional content and funding became most important for programs such as vocational education. Water, Marzano, and McNutty (2003) referred to this dilemma in their research; "Balanced Leadership: What 30 years of research tells us about the effect of leadership on student achievement":

> Different perceptions about the implication of change can lead to one person's solution becoming someone else's problem. That is, if a change has first order

(an extension of the past, within existing paradigms). implications for one person or group of individuals, yet has second order implications (a break from the past, outside of existing paradigms). **my parentheses** for another person or group, this latter group may view the change as a problem rather than a solution. This is true of nearly every educational reform introduced over the last 30 years. The shift from focusing on the inputs of schooling to the outputs of schooling, which was the core concept in "outcome-based" education, is a classic and dramatic example of one person's solution being someone else's problem (p.7). (the parentheses is from the original quote).

The previous concept was relevant to vocational education, and especially to education of 'at-risk' students. Educators identified more students in need of alternative methods of education while policy makers simultaneously promoted stringent 'accountability' in education forums that did not reconcile well with how 'at-risk' students best learn (Donmoyer & Kos, 1993; Sanders, 2000). Levesque (2002) provided educators and policymakers with two important thoughts regarding adolescents and our educational system. He believed that "[s]chools ostensibly have lost their ability to foster adolescents" (p.6). and that "[d]espite pervasive agreement among commentators that schools fail both adolescents and society, reform proposals paradoxically fail to focus on adolescents and their place in society" (p. 7).

A prominent issue was how current legislation diminished funding for vocational education. For example, in the No Child Left Behind Act (NCLB), Title I funds serve the very neediest students (Johnson, 2004).   Between 2002 and the project budget for the upcoming fiscal year there were cuts of two-thirds in 2002-03 and the project reinstatement of the funds in 2004-06   (U.S Department of Education National Center for Education Statistics, 2004; Johnson, 2004).   In a review of Title I, the 'at-risk' student populations were relatively small percentage of all high school students. Yet, 'at-risk' students in vocational programs were not directly addressed or supported by Title I funding unless the vocational school was identified as an at-risk 'alternative education' program (U.S. Department of Education: High standards, 2001).

In a report on public alternative schools and programs, the authors Kleiner, Porch, and Farris (2001) identified background, key findings, and current staffing, curriculum and services available in alternative schools and programs. The authors indicated that increased accountability for academic schools to meet federal and state benchmarks, made special populations students, including those at-risk (identified or not) more of a 'liability' to school districts' with regards to students' achievement reports. Therefore, many unidentified 'at-risk' students may be encouraged by their academic advisors to enter vocational programs as an 'alternative education' placement without vocational programs receiving the necessary educational supports to respond to increasingly high placements of unidentified 'at-risk' students (p. 1).

1.1.2   Vocational Education: History and Mission

The Smith-Hughes Act of 1917 was the first federal legislation to provide funding and influence the development of secondary vocational education (Lynch, 2000 p. 2). At its inception, a primary goal of vocational education was to assist students with technical training and apprenticeships in a more formal mode and at a younger age. The advent of the industrial age and other historical issues, such as wars, and numerous technological advances increased the need for improve quality of technology education and communications in all areas of labor. The vocational curricula provided a bridge between secondary schools and labor and industry (U.S. Department of Education National Center for Education Statistics, 1992; Lynch 2000; Franklin, 2000).

The Carl D. Perkins Vocational and Applied Technology Education Act of 1990 provided a current definition of vocational education: It is

organized educational programs offering a sequence of courses which are directly
related to the preparation of individuals in paid or unpaid employment in current
or emerging occupations requiring other than a baccalaureate or advanced degree.

 Secondary curriculum was divided into three parts; academic, vocational and personal/other

(U.S. Department of Education National Center for Education Statistics, 1992, p. 5).

Vocational programs are offered at 93% of the nation's 15,200 comprehensive high

schools. Most vocational courses enabled the students to achieve an introductory level of

competency. Examples of courses offered in traditional high schools included marketing,

computers and technology education, family and consumer science. Another 75% of the

comprehensive high schools provided more extensive vocational programs such as marketing,

allied health, and agriculture. Recent federal additions to comprehensive school vocational

programs included "public and protective services, childcare and education, food service,

hospitality, technology and communications, and personal and other services to its (the federal

government's) classification of vocational education program areas." Approximately 1,100

secondary vocational schools enabled students to attend half-time or evening vocational

programs. Another 250 'comprehensive' secondary vocational schools incorporated academic

and vocational curricula in one building (Lynch, 2000, p. 2).

Enrollments in vocational education programs rose until the early 1980's after which they

have steadily declined. For example in 1982, according to Lynch (2000), the 'average'

"American high school student" had 22% of their Carnegie units in vocational education. By

1994 only 16% of the students' Carnegie units were in vocational education (p. 2). The decline

of vocational education enrollment occurred for many reasons. Lynch (2000) summarized this

research and sited the following five reasons. First, vocational programs were viewed as not

meeting the needs of "students, employers, and the community" Second, dual and contradictory

shifts occurred in vocational education. Vocational programs competed for students who were considering college-preparatory programs, as the vocational curricula were simultaneously "dumbed-down". The 'dumbing-down' led to the current curriculum image about vocational education. Third, vocational programs began to be used primarily for placements of educationally disadvantaged students. Fourth, the new 'school-to-work' concepts in vocational education were not well developed and they had many critics in education. The fifth and sixth reasons were inextricably tied to together as a 'package of prejudice rhetoric'. Students who aspired to a four-year college education could not find "education for work" appropriate. A consensus developed that vocational education would "inhibit rather than enhance" students future career and educational aspirations (p. 3). The previous concepts in which vocational education was seen to inhibit rather than enhance students' progress provided a direct linked between vocational education's negative reputation because of stronger 'accountability' issues which had developed in education.

As accountability issues in education become a stronger focus in educational policy formation, funding became more directly tied to achievement statistics with students (PAVA, 2004; National Center for Education Statistics, DOVE, 2004, United States Department of Education, Office of Vocational and Adult Education, 2004). The question resurfaced regarding vocational education as an obsolete instruction form for education (Pennsylvania Vocational School Directors February 2, 2004 memo).

As policies were reframed around the intent and purpose of secondary vocational education, educators were advised to consider the goals of a high school education to assure the inclusion of the educational needs of diverse student populations (Sanders, 2000; Donmoyer & Kos, 1993). The "Keystone Commission on Education for Employment in the 21st Century"

provided numerous misconceptions about what educational preparation entailed for high school students. The concepts of educational preparation remained very controversial for policymakers, educators, parents, and students who made decisions about career choices and education processes.

A strong example of a 'misconception' in education preparation was the following: Although college graduates often have higher salaries than non-college graduates, many of the 21st century jobs do not require a four year degree (Keystone Commission, p. 22). The United States Department of Labor Bureau of Labor Statistics (March, 2004) provided incongruent statistical information regarding recent high school graduates. More that 65% of high school graduated enrolled in college in 2002. However, numerous positions required only additional on-the-job training. Six of the ten fastest growing occupations required a two or four-year degree. Occupations with the largest job growth required only short-term, on-the-job training after high school. The professional and related occupations at one end and the service occupations at the other end, projected more than half of the job growth over the 2002-12 decade. However, the two groups of occupations were at opposite ends of the economical and earnings ranges (Bureau of Labor Statistics, March 9, 2004). Taylor (2004) identified the top jobs for college graduates include accounting and finance, entry-level management posts, sales, teaching and engineering along with continued need for health care and construction positions. However, each career track had diverse jobs opportunities which included secondary or adult technical training. There was also the potential for the students to climb career ladders with additional postsecondary education.

Vocational education assisted students in both career and college preparation through the inclusion of applied curriculum. Applied curriculum has been a strong component of vocational education in school-based and work-based curricula. Sternberg (1997) addressed the inclusion of

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practical application of curriculum for students who excelled in this type learning environment. He believed that students who were provided with curricula that identified their interests and assured their practical application scored 'significantly' better on tests. The author also espoused to the concept of applied principles to provide the students with avenues to demonstrate their mastery of knowledge in a way that curricula that focused on "memory and analysis" did not allow (p. 7).

van Zolinger (2002) also supported the application of knowledge for students. He believed an essential role of vocational education was to provide a bridge between school and work environments. The author proposed that vocational curricula remain "broad" enough to enable students to gain "key qualifications". From the broader curricula, van Zolinger (2002) believed that students could then focus on content specific to a particular occupation or job (p. 217). The applied curriculum, so often used in vocational education, offered a bridge between two major contrasting issues in educational discussion today; accountability and student reform (Sanders, 2000; National Governors Association, 2003).

The issues of accountability and student reform provided identification of the importance of education for *all* students, not just the academically successful. However, the No Child Left Behind (NCLB) legislation ingrained educators with a 'product-based' accountability versus a 'student-enhanced' pedagogy. NCLB was a response to the observation by many constituents, including business and industry, that students exited high school without the 'basic skills' or 'key qualifications" observed in many previous academic and vocational students (van Zolinger, 2002; Johnson, 2004). Educators continued to focus on the basic skills of the three R's with the new accountability issues. This focus led to an enormous burden for educators to educate students who were not interested in academics which had no immediate credibility to them (van

Zolinger, 2002).   Most importantly, according to Johnson, (2004) NCLB became a final piece in the chapter of how "political ideology" influenced the educational reforms of twenty years. The educational focus shifted from "solving problems caused by poverty and racial discrimination to setting formal benchmarks and demanding educator accountability" (p. 2).

Achtenhagen and Grubb (2001) considered the pedagogical issues of vocational education and the relationship to the economic purposes of education. The conundrum they authors was that "[t]he worldwide call for more occupational forms of education contrasts sharply with the continued neglect of vocational education in many countries" (p. 605). The authors identified how a renewed interest in "the economic purposes of education have sent policymakers scurrying after more overtly vocational forms of education" (p. 605). In contrast, van Zolinger (2002) believed school reform should be student centered. He indicated a positive relationship between students' interests and improved academic test scores. The author identified how social and communicative skills, such as working independently to solve complex problems, planning one's own work, and a willingness to continue to learn, encouraged students' interests in their educations. The previous concepts led to more academic success for the students (p. 218).

Student-centered school reform was addressed because of the increasing numbers of special populations' students in all high schools, especially those 'at-risk'. Funding for these students was diminished in response to the need for increased funding for accountability issues in education (Johnson, 2004).   Adolescents have been especially vulnerable both socially and emotionally to their educational environments (DeRoche & Williams, 1998; Elias, 2001; Levesque, 2002).   Many 'at-risk' students, who exited high school with minimal basic skills or drop out, did not become productive citizens. The authors noted that the students provided a less

stable environment to raise their children in (Donmoyer & Kos, 1993; Sanders, 2000; Levesque, 2002). It was a high educational goal to send all of our students to college. Assessments scores of the students' academic abilities indicated that many students were not 'college material'. Educators could choose to intervene and accommodate their needs. Encouragement of students' interests in their education may promote college educations in their futures (Hess, 2000; Pennsylvania Vocational School Directors, 2004). Presently, the students' emotional, socioeconomic, and educational deficiencies issues can be addressed (Donmoyer & Kos, 1993; Sanders, 2000; Levesque, 2002; *Kids Count Data Book*, 2004).

Sanders (2000) also turned the table, so to speak, on education reform and addressed the issue in a student centered way:

> Educators continue to ask, 'Is the child ready for school?' and 'Is the child at risk of failing school?' The inherent danger in solely making such inquiries is that blame or credit is unduly placed on the child. Educators must also ask, 'Is the school ready for the child?' and, 'Is the school at risk of failing the child?' Knowledge and learning are far too interdependent to place the responsibility for outcomes solely on the learner (p. 5).

Nightingale and Wolverton (1993) focused on student centered school reform by identifying adolescent 'rolelessness' and the need to encourage adolescent involvement with their community, but not at the expense of assisting non-college bound students prepare for the future:

> Beyond community service, there is also a need to help non-college-bound youth to secure stable employment at an earlier age. This may be done through school programs, on-the-job training programs, or programs that aid the job search and teach how to work (p. 483).

1.1.3 Vocational Education: Funding For Vocational Education/Alternative Education?

President Bush's proposed budget for the fiscal year 2005 provided little funding for secondary vocational education. A recent communication to Pennsylvania Vocational School Directors (PAVA) from Jackie Cullen, previous Executive Director, PAVA (2/2/04) entitled, "President's FY 05 Budget

Unveiled" indicated that President Bush considers secondary vocational education to be an "outdated relic" form of instruction. The president perceived vocational education met the needs of students 50 years ago, and was not a part of the 21st century's educational changes. The secondary vocational programs did not prepare students for college and provided only a narrow set of job skills. President Bush added that students in vocational schools were not achieving despite the federal investment into the Department's Vocational Education State Grants program (p. 2).

Vocational education may have provided a more 'dynamic, academically rigorous component' for traditional academic students who attended vocational programs, but perhaps not for 'at-risk' students. According to the National Governor's Association (2003), "[t]he nation's large, one-size-fits-all high schools are themselves an obstacle to success for many young people, particularly low-income and low-achieving youth" (p. 20). 'At-risk' found these stringent academic environments "impersonal", "inflexible" and "alienating". These were also three specific feelings 'at-risk' students expressed about school in general. There was a "serious shortage of high-quality school environments that can motivate low-achieving high school-age students to take responsibility for their learning and succeed academically" (p.20). The 'at-risk' students required unique methods of learning to encourage their 'engagement' first before they may excel in academic classes. Methods of how 'at-risk' students utilized vocational education placements will be reviewed. The methods included the integration of the students' socio-emotional, developmental, and educational needs.

Another recent proposal that may have diminished funding and other support of secondary vocational training was the NCLB's 'service learning' component. In NCLB, the Bush Administration emphasized that all students would acquire the skills for success. Recent policy statements indicated that the Bush Administration planned to reallocate the Perkins Act funds for secondary vocational education to support the Pell Grant program for postsecondary education, especially community colleges

and postsecondary programs that provide specific job preparation curricula. NCLB instead encouraged secondary schools to utilize 'service-learning' as means for students to have contact with their communities, explore possible careers, and provide volunteer services as part of an 'integrated curricula'. A review of the 'service learning' curricular guidelines indicated that that service learning may be nothing more than an offshoot of secondary vocational education, somewhat modified, but without providing job skills and paid cooperative education experiences. The goal of service learning "provides thoughtfully organized experiences that integrate students' academic learning with service that meets community needs" (NCLB of 2001: Linking Title V, 2004, p. 2.). What could ensue with this policy shift would affect the students from poorer socioeconomic backgrounds, or educationally 'at-risk' students from diverse catchments. These students would not have access to a vocational education so they could to acquire interpersonal, career-related, and citizenship skills necessary to exit high school either ready for employment or to achieve at the postsecondary level (Nightingale & Wolverton, 1993; Muscott, 2001).

The changes in vocational education funding and the implementation of NCLB greatly affected 'at-risk' and special populations' students. It occurred because of two very prohibitive issues identified for some students to succeed. The first issue was that the students could not be prepared within the new educational programs designed because of the types of students they were. And second, they could not attend postsecondary schools because the 'funding' changes provided by the current policy language for Pell Grants did not truly meet the needs of poorer 'at-risk' students. Student at-risk economically would likely have to maintain jobs while they attended rigorous academic programs (Cetron & Davies, 2003; Kids Count Data Book, 2004; Pennsylvania Association of Vocational Administrators, 2004).

Strong advocates of vocational education offered numerous positive reasons to continue its support. For example, a consideration of merit for secondary vocational education was the

preparation for jobs it provided to students who also planned on attending postsecondary schools. Many college students work part-time or full time when they attend school. More women than men, more whites than blacks, but almost half of the full time students and over 75% of the part time students worked during college. Vocational programs prepared students for skilled jobs such as an auto mechanic, mason, or data processor. Students, who pursued vocational training in high school, were prepared for these skilled jobs which were often paid well above minimum wage. Secondary vocational training as a resource for income for college students was especially important for minority's students, who often did not have the financial assistance available to them to pay for college tuition (U.S. Department of Labor. BLS, 2002; *Kids Count Data Book*, 2004; U.S. Department of Labor Occupational Employment Statistics, 2004).

The concept of vocational education providing job training for students attending college was important because over 90% of college students attend full time. Full time student status required many of the students to work and attend college simultaneously to pay for tuition. Over 42.6% of full time college students were employed or looking for work in October 2002. The rate of employment was even higher for part-time college students at 75.7%. Students (39.2%) attending four-year institutions did not work as much as those (59%) attending two-year schools. These figures also supported the need for students who attended college to have some job skills before they attended postsecondary schools. The better paying jobs were more likely those for college students who have some vocational-technical skills in lieu of only a general academic preparation for college (U.S. Department of Labor. BLS, 3/9/04). 'At-risk' students who were economically disadvantaged often had no parental support for their postsecondary education. Vocational education skills could assist 'at-risk' students who planned to attend college support themselves better.

A report on the status of Pennsylvania Career and Technical Education on dropout by grade for 2002-2003 provides surprising data: The rates for high school grades included the following ranged from 18.3% for grade 9 to 26.3% for grade 12.

The dropout rates for grades 10 and 11 had long term effects on the students. The lowered age of the students made them less eligible for employment. The students were also less likely to seek postsecondary educations later because of the amount of academic remediation necessary to enter postsecondary programs on even footing with high school graduates. Another concern was the job placement of students who do not attend college and who may be at risk of dropping out. Vocational education may have benefited 'at-risk' students, especially those who drop out, if it enabled them to obtain entry-level positions (*Kids Count Data Book*, 2004).

Policymakers could have reconsidered how diminished funds for vocational education would impact 'at-risk' and special populations' students. In the National Governor's Association (2003) report, "Ready for tomorrow: Helping all students achieve secondary and postsecondary success" it was suggested that assistance for low-performing students; students who were achieving significantly below grade level and/or in danger of dropping out would not be diminished. Instead, it was advised that the low-performing students and their schools should have additional academic support. It was also indicated in the report that, "[l]ow-performing high schools often have an overrepresentation of 'at risk' students (p. 33).

An excellent summary of the issues about vocational education funding was provided by Hess (2004), when he questioned "What is a 'Public School?'" The author addressed the issue of placing constraints on technical educational programs at a time when new avenues should be developed. He cautioned educators and policymakers about the continuance of their "pinched

rendering" of support and resources for reform methods of education that best suit the technological and social differences of the 21ˢᵗ century (p. 439).

1.1.4 'At-Risk', 'Disconnected' Students: Identification, Statistics, Placements, and Policies

The review of the literature does not lead to easy identification of how the increase in 'at-risk' student populations evolved over the past few decades. In the *Kids Count Data Book* (2004) there was reference to the 'disconnected' youth. These were young adults 18-24 who were not enrolled in school, were not working, and had no degree beyond high school.   There was an inference that 'at-risk' high school students also may become 'disconnected' young adults. In their early 20's disconnected youths "find themselves facing adulthood unprepared, unsupported, and dispirited" p. 6). The saddest part of the situation for disconnected youths was, like 'at-risk' high school students, the transitions from high school to adulthood was not easy for many of them. Instead, these youth faced increased frustration and often failure. Most importantly, it appeared that the students, who had the most needs were those most negatively affected by the recent changes in the educational and social policies (p. 6).   It was estimated that over $233 billion would be spent at the federal level with state and local governments to provide additional social funds to help our neediest children and their families. An additional factor that was considered with the staggering fiscal issue was that many of these neediest children and their families would not become productive workers or put tax revenue from earnings back into the system. The loss of support for disconnected youth and the subsequent loss of their potential economic contributions as wage-earners for society created a vicious negative social and economic cycle (p. 13).

To fully consider what 'at-risk' labeling entailed and who 'disconnected' youth were, it was important to review concepts about adolescent growth and development.   The concepts about adolescents also included how educators and communities may have changed towards adolescents. For

example, it appeared that adolescents appeared to need both character development and social-emotional guidance to take their places in society. The concepts of character curriculum were not new among educational approaches. A basic teaching approach in character curriculum is nurturing (DeRoche & William, 1998). According to DeRoche and William (1998) the pedagogy, perhaps more so with adolescents, was built on the nurturing of ideas which involved our relationships to one another.

> Dedicated and energetic educators are trying to plant fine ideas into a school environment, which has lost its capacity to truly nurture those ideas. The 'soil' of our schools has lost a nurturing ingredient that is essential to give life to the ideas and the efforts of educators. That missing ingredient is the school's moral mission (p. x).

The authors proceeded to clarify that a 'moral' mission does not pertain to something religious, but instead it encompassed ethical responsibilities by those around youth to promote their growth. 'At-risk' students often were raised in environments deficient in the support of nurturing adults. It was important for those who influence students; that is, teachers, administrators, parents and others, to provide good "habits" for the students to emulate (DeRoche & William, 1998).

The research contained linkage between psychological and developmental theorists' concepts of adolescent development and current socio-emotional issues youth faced. Elias (2001) outlined this linkage for adolescents. "The classic concepts espoused by Erikson and Piaget are important and insightful in understanding the needs of adolescents" (p. 2). The author further identified the struggle adolescents faced using the 'emotional intelligence' theory. Adolescents, by nature, questioned themselves, their families, and their environment:

> Virtually every adolescent is looking for answers to the following questions. How can I understand who I am now and who I will be in the future? How can I nurture and build positive relationships? How can I develop skills to handle everyday challenges, problems, decisions, and choices? How can I become a moral, ethical, active committed human being? How can I develop a 'positive' constructive identity?
> (Elias 2001, p. 2)

Kohlberg, et al (1972) reviewed developmental concepts of Erikson and Piaget "To summarize, all accounts of adolescence stress both the sense of questioning and the parallel discovery or search for a new self of the adolescent" (p. 148). The adolescents' questioning encouraged them to be open to their environment as they simultaneously struggled with inner concepts of self idealization. In this medium the seeds of leadership, integrated with their communities, may flourish if it was provided to them by parents and teachers (Neil, 1960; Kohlberg & Gilligan, 1972; Csikszentmihalyi & Larson, 1984). Kohlberg, et al (1972) proceeded with to address how adolescents struggled with self-idealization directly related to their perceptions of their educations.

> The importance of taking adolescent questioning seriously is not only importance for psychological theory, it is also central to a successful resolution of current problems in the American high school. For education, the problem of meaning just raised is the problem of whether the high school has meaning to the adolescent (p.148).

Neill (1960) and Gibbons (2004) also questioned the meaningfulness of traditional education modes for students. Both authors struck a consonant cord whey they questioned how educators could have assisted children with their independence and adulthood. The authors identified concepts which were integral to this process. Two similar concepts were presented in the literature. Neil (1960) identified the idea of 'emotional intelligence'. The concept of 'developmental curriculum' was espoused by Gibbons (2004) many years later.

Coles (1997) appeared to agree with the previous concepts of emotional intelligence' and 'developmental curriculum'. An interview with Gergen (February 21, 1997) the interviewer began by asking Coles "[h]ow can we raise children to be 'good people' whose moral character sustains them as adults?" (p. i). Coles distinguished the difference between our 'cognitive' intelligence and 'moral' intelligence. He believed the questioning of children as central to their development.

> They [children] ask these endless whys, and these are not to be dismissed as merely going through a psychological stage. These whys are affirming their humanity, and these whys show their moral hunger, and we ought to figure out even as we're

wondering about how we're going to feed them correctly with the right amount of vitamins, we ought to be thinking about these moral aspects of their hunger, and try to figure out how to feed that, and by the way, feed ourselves (p. 3).

When a comparison was made of the needs of adolescents, and how schools have or have not been addressing their needs, with 'at-risk' students it became evident how much further the 'at-risk' students deviated from what was considered a 'shaky' adolescent population at best (Donnelly, 1987; McCann & Austin, 1988; Naylor, 1989; Damico & Roth, 1993; Donmoyer & Kos, 1993; Franklin, 2000). The 'at-risk' characteristics for students identified by researchers included high absenteeism, poor grades, low test scores, low-self concept, history of behavioral problems, inability to identify with other people, employed full time while in school, low socioeconomic background, usually male, and feelings of alienation and isolation. The family background characteristics for students included families with many siblings, an absent or unemployed father, low education of parents, and an absent mother in the early adolescence of the child. Educationally disadvantaged characteristics for the students included that they did not achieve at a level to assure acquisition of knowledge or meeting state standards and measures (Donnely, 1987; McCann & Austin, 1988; Naylor, 1989; Damico & Roth, 1993; Donmoyer & Kos, 1993; Franklin, 2000).

'At-risk' students often had discipline issues which interfered with their education. Factors not previously noted included the students were school-age parent; had histories of personal and/or family drug and alcohol abuse; had parents with low expectations for success for their children; had histories of physical, emotional, or sexual abuse; and students who experienced family traumas such as death of parent or divorce of parents (Cardon, 2000). But the most poignant description was from Liontos (1991) in which the author bridged the needs of adolescents previously identified with the discrepancies found in the 'at-risk' student's world. The author quoted a teacher, "I never see the parents I need to see" and

describes the 'at-risk' students as "at-risk of failing, of dropping out, of having what in today's world accounts for no future at all" (p. 1).

There were alarming increases in the populations of 'at-risk' and disconnected youths in the information provided from the "*Kid's Count Data Book*: 2004" and the Pennsylvania Department of Education websites.

> Currently, it was estimated that there were 3.8 million youth between the ages of 18 and 24 who were neither employed nor in school—roughly 15% of all young adults. Since 2000 alone, the ranks of these non-engaged young adults grew by 700,000, a 19% increase over just 3 years (Kids Count, 2004, p. 6).

The statistical information about 'at-risk' populations and 'disconnected' youths indicated these students remained a great concern for educators and policymakers. However, there was also the impression of incongruity with regard to the importance of the increased numbers of identified and unidentified 'at-risk' and 'disconnected' youth. The current educational policy planned to diminish funds to assist these student populations (National Governors' Association, 2003; *Kids Count Data Book*, 2004).

The demographic data of at-risk or disconnected students for the nation was compared with Pennsylvania's total number of students and those at-risk or disconnected. The comparison served as an example of state versus national statistics (*Kids Count Data Book*, 2004, Pennsylvania Department of Education, 2003).

> In 2001, almost 1.4 million teens between the ages of 16 and 19 were neither enrolled in school nor working. Nationwide there was a decline in the share of idle 16- to-19 year-olds, from 9% in 1996 to 8% in 2001 (Kids Count Summary, p. 41).

The demographic data for the nation included the following table.

Table 1-1 Kids Count Data Book (2004). Demographic Data

Demographic Data	Number	Percent
Number of children and young adults	288,368,698	100
Total young adults ages 18 - 25	28,341,732	10
Eight grade student who scored below basic math level		33
Percent of 18 – 24 years olds in poverty, 2002		20
Number of young adults who are disconnected, 2002	3,843,000	15

Kids Count Summary p. 50).

Pennsylvania's ranked was 13th nationally in a comparison of the 50 states. The state's

rank was determined by the

> sum of a state's standing on each of 10 measures of the condition of children
> ranged in sequential order from highest/best (1) to lowest/worst (50).   The
> measures are as follows: percent of low-birth weight babies; infant mortality rate;
> rate of teen deaths by accident, homicide, and suicide; teen birth rate; percent of
> teens who are high school dropouts; percent of teens not attending school and not
> working; percent of children living in families where no parent has full-time,
> year-round employment; percent of children in poverty; and percent of families
> with children headed by a single parent (Kids Count Summary p. 52).

In Pennsylvania, the percentage of teens who were high school dropouts (ages 16-19):

2001 was 7% and ranked of 7th nationally. The percentage of teens that did not attend school and

did not work (ages 16-19) 2001 was 11% and ranked of 7th nationally (Kids Count summary p.

141).

Estimated high school graduates for the United States in 2002-03 was 2,684,920 an

increase of 5.1%. Pennsylvania graduated an estimated 119,932 students, an increase of 5.2%.

However, according to a report on "Career and Technical Education: Secondary Programs" for the

year 2001-2002 the statistics for special populations student enrollments validates a disproportionately

high numbers of special populations students in secondary vocational programs (Pennsylvania

Department of Education, 2003).   The disproportionate high numbers of special populations' students

in secondary vocational programs continued through 2005 when the data was last checked. The

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placement of special populations' students, including those 'at-risk' in vocational programs may not have been a strong consideration of policy makers when determining the 'success' or 'failure' of vocational programs. However, recent issues directed at high accountability of vocational programs had been strongly stressed in the public eye (U.S Department of Education National Center for Education Statistics, 2004; *Kids Count Data Book*, 2004).

There were 46,388 students in area vocational technical schools (AVTS) and high school vocational programs. In the AVTS, which included academic and vocational programs in the same school, the% of special populations was 49.7. In high school vocational programs the% of special populations dropped to 41.1. The majority of students in both AVTS and high school vocational programs were classified as follows in Table 2.

Table 1-2 Pennsylvania Secondary Special Populations' Vocational Students

Students	*AVTS Percent*	*High School Percent*
Learning Disabled	25.9	10.7
Economically disadvantaged	22.3	20.5
Educationally disadvantaged	24.6	16.9

(Pennsylvania Department of Education, 2003, p. 8).

The completion rate for students in AVTS programs was 68.4%. In vocational programs in high schools the completion rate was much lower, 31.6%. The very low completion rate in high schools may have been due to the lack of communication between the academic and vocational teachers, separated curriculum structure, or different teaching strategies for students who attended AVTS programs. The special populations' students in vocational programs took the following academic courses as noted in Table 1.3

Table 1-3 Academic Course Taken By Special Populations' Vocational Students

Academic Courses Taken by Special Populations			
Course	*Percent*	*Course*	*Percent*
College Prep English	45	Algebra I	62.4
Algebra II	39.2	Plane & Solid Geometry	43.4
Trigonometry	10.1	Biology	63.5
Chemistry	29.9		

(Pennsylvania Department of Education, 2003, p. 12).

1.1.5   At-Risk' Statistics How and Why?

The information provided addressed the quantitative aspects of student populations in vocational programs for Pennsylvania. However, the disproportionately high placement of at-risk and special populations' students in vocational programs provided educators with a major educational hurdle. Students who entered vocational programs were often 'at-risk' for dropping out of school even before their placements in vocational programs. The individual education plans (IEP's), home school documentation, or outside of home placement agencies reports often indicated the students had previous years of struggle educationally, socio-emotionally, or both. Career objectives were identified for the students by sending schools' guidance counselors. However, some of the students entered the vocational programs as an 'alternative' education program. The vocational school was a second chance, even a last chance for some students who had severe behavioral issues or were so academically disadvantaged they would not graduate by age 20. The 'career placement and preparation' educational goal which was the purpose of vocational schools became a secondary issue to the 'alternative education' placement for many students (Pennsylvania Department of Education, 2003; *Kids Count Data Book,* 2004).

Rojewski (1997) provided a strong evaluation of vocational education students' placements in his work on the disadvantaged students and their work experience and postsecondary aspirations:

Practitioners should be aware of the general work and aspirations patterns reported in this analysis and need to address concerns that vocational programs may serve to socially exclude or "track" youth. To address this increasingly sensitive issue, future research efforts should focus on whether adolescents participate in vocational programs because of personal reasons and decisions (e.g., self-concept, academic ability, or interests in obtaining vocational skills training) or as a result of systemic (institutional). practices that tend to place disadvantaged and less academically able youth in vocational programs (p. 13).

Two major educational hurdles were identified by educators which they faced with 'at-risk' students. The first hurdle was that at-risk students often exhibited behavioral problems in the classroom. The second hurdle was that these students were often non-traditional learners (Donnelly, 1987; Naylor, 1989; Rockwell, 2001; Cardon, 2003). Rockwell (2001). indicated that behavioral issues with students often occurred when they were not able to express themselves within school related activities: Given the fact that 'at-risk' students often exhibited social-emotional maladaptive behaviors; most academic models of instruction did not meet their needs:

Unfortunately, many school districts have a 'get tough' approach (to students with EBD). Punishment, retention, failure, and exclusion from school has become preferred practice with students who are not interested in a traditional curriculum or unable to make adequate progress within the predetermined timeline required for graduation (Rockwell 2001, p. 16--EBD = emotional behavioral disorders).

In conclusion it was noted in the research that if educators and policymakers continued to diminish the behavioral needs of at risk students with curricula that had 'no meaning' to them, then these students may have continued to be on the periphery of education (Donnelly, 1987; Naylor, 1989; Rockwell, 2001; Cardon, 2003). The result further encouraged more students to drop out and more students to be unprepared to even exit high school with enough skills to obtain a job (Rockwell, 2001; Cardon, 2003; Kids Count Data Book, 2004). Rockwell (2001) positively aligned diminished maladaptive behaviors in students with their improved interest in their educations: "Students who exhibit divergent patterns of growth in the cognitive or social-

emotional domains often fail to experience a sense of belonging, achievement, or power through

school related activities" (p. 16). The author also identified that school related activities for 'at-

risk' students should have provided practical applications:

> In addition to neglecting issues related to motivation and development, schools
> traditionally fail to adequately address the learning styles of students who learn
> best by applying information to practical situations and creative problem solving
> p. 16).

1.1.6 Student Engagement

1.1.6.1 Necessity for, definitions of, current practices, and future considerations

The literature review of student engagement was divided into four areas: (1).

consideration of the necessity for student engagement in education, (2). student engagement

encompassed in past and present concepts of what student engagement meant and researchers'

definitions, (3). which current education practices were most utilized according to the literature

review and how they were successful or unsuccessful in the goal of student engagement, and (4).

future methods to promote student engagement. The future methods to promote student

engagement included reviews of the successes of methods used and how student involvement

provided a key to the development of better student engagement in their learning.

1.1.6.2 The necessity for engagement

A fundamental basis for student engagement was found in the early education reforms of

the 20th century. Dewey was a philosopher and educator who provided insights into curricular

reform. However, Dewey was also a psychologist who saw the importance of the students' self-

worth and self determination (Swortzel, 1996, p. 2). Dewey promoted a concept of schools

wherein students were enabled to be 'part' of social changes by the facilitation of their 'self-

actualization'. This educational philosophy offset the more dominant one of society 'educating' students. Swortzel (1996) acknowledged that as far back as the early 1900's there was great concern with high school education becoming "too abstract and not related to real life" (p. 2). The drop out rate for high school students was staggering. It was accompanied by the negative social trends of delinquency, crime and poverty. These issues enhanced the development of 'compulsory' education in America (Swortzel, 1996, p. 2).

Concurrent to the developments of compulsory education and strict methods student instruction and evaluation were other educational ideas. Dewey proposed that students learned "through direct experiences" and student learning was best "motivated by interest, empowered by knowledge, and driven by a conceptual challenge or problem" (School Reform Web Center-Student Engagement, 2004, p 2). Dewey promoted student assessments which provided feedback to teachers and stimulated the students especially in their ability to "form new habits" He also promoted a deeper understanding of students rather than relying strictly achievement tests to determine students' successful learning. Dewey cautioned educators on the use of achievement tests to classify students without also encouraging students' options and opportunities. He believed that classification of students too early in their education and without a method of reevaluation of their needs could stifle their learning potential (Swortzel, p. 5).

Another educational psychologist, Piaget, addressed learning as "an active process of comparing, contrasting, and creating new systemic interpretations" (School Reform Web Center-Student Engagement, 2004, p. 2). Gibson (1968) identified two contingencies Piaget believed were necessary for learning to take place. The first was the student's maturation level, and the second was "a past history of adequate interacting with the environment" (p. 179). Gibson also noted that Piaget believed that along with the developmental stages he identified in children

associated with learning, students also begin to gradually internalize "many of his actions into thoughts" (Gibson, 1968, p. 173). Gibson provided the following quote of Piaget to support the students' gradual internalization or engagement.

> When I discuss and I sincerely seek to understand someone else, I become engaged, not just in avoiding contradicting myself,…but also in entering into an indefinite series of viewpoints other than my own…It is a moving equilibrium (School Reform, 2004, p. 3, Piaget, 1977/1963: 684).

Whether student engagement was necessary in education was answered in a follow-up data from the national study 'High School and Beyond' (Vanfossen, Jones, & Spade 1987). The authors presented the interpreted data which indicated that "[s]tudents who are academically and/or socially engaged with their school's programs are likely to persist to graduation, while those who are estranged from them are most likely to drop out" (Wehlage, et al. 1989, p. 177). An important question was formulated from this research. What occurs for the students with 'some degree' of engagement academically or socially in school? Engagement for these students was found to be "tenuous" and they often had academic and/or behavioral issues. These 'at-risk' students exhibited their disengagement fairly overtly in many instances, but most importantly for educators to consider is that lack of engagement "is a problem among a majority of high school students" (Wehlage et al, 1989, p. 177).

Rockwell (2002) addressed the necessity of engagement for 'at-risk' students. The author claimed that students, who are especially prone to exhibit more maladaptive patterns of adjustment both cognitively and social-emotionally, often did not "experience a sense of belonging, achievement, or power through school-related activities" (p. 16). 'At-risk' adolescents, who were prone to these maladaptive patterns needed a strong 'social curriculum' to promote their engagement in learning (Rockwell, 2002 p. 16).

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Other discourse in literature regarding the necessity of student engagement accentuated the fact that we did not need more knowledge regarding <u>how</u> to motivate, that was to stimulate or influence students as much as we needed to figure out to <u>use</u> this information. How educators used the information about student motivation and what interests them, led to student engagement, which was defined as involvement and commitment to learning by the students (McMahon & Portelli, 2004, Cushman, 1994, & Fletcher, 2003).

McMahon & Portelli (2004) provided strong arguments that engagement of our adolescents in their education was important for the students and for our society. First, the authors proposed that student engagement was highly correlated to students' academic success. "In the last decade educational research about school improvement and effective schools increasingly identifies the significance of student engagement in relation to the academic success of students" (p. 59). The authors found in previous research what they identified as "formats" of student engagement. The "formats" of student engagement, or the conditions surrounding student engagement, have hindered or promoted the students. The authors focused on the '"philosophical" aspects of what student engagement entailed McMahon and Portelli (2004) identified and provided a connection between student engagement and concepts surrounding democracy and the education of students (pp. 59-60). To summarize their work, the authors "[p]ropose a conception of student engagement based on critical democratic practice…" (p. 61). Their primary focuses on democratic principles and student engagement challenged the traditional concepts of engagement that involve 'teaching strategies' or 'procedures' to engage students. The authors aimed at research questions that addressed an 'interactive' concept of student engagement which focused on "dispositions, values and aims associated with student engagement from students' and teachers' perspectives" (p. 60). Because the authors'

perspectives on student engagement focused on democratic principles, the definitions of student engagement developed by McMahon and Portelli (2004) included "substantial ethical and political issues" (p. 60). Their definitions of student engagement will be reviewed along with other authors' concepts when discussion of definitions of student engagement is presented.

Further consideration of the necessity of student engagement was found in the work of Csikszentmihalyi and Larson (1984). when they addressed the 'social aspect' of learning. The authors believed that

> [E]ach individual needs the care and challenge that comes from belonging to a community, whether that community takes the form of a family, a school, an after-school program, a religious organization, or a neighborhood (p. 455).

The authors further elaborated about the social aspect of learning. They identified the "flow" in adolescence as interactions between them and their environment. This flow was defined as "a state of self-transcendence in which people feel 'harmony between dimensions of consciousness: between goals, thoughts, emotions and activations'" (p. 454). Another concept identified by the authors was that students were observed to exhibit this 'flow' in learning environments that were 'enjoyable' (p. 454).

Many researchers provided depth to the social aspects of student engagement and how much adolescents needed to feel a part of their environments to promote learning (Nightingale & Wolverton, 1993, Glasser, 1998, Rockwell, 2002; Levesque, 2002). For adolescents who faced increased "rolelessness" in our society, lack of engagement in their learning encouraged them "…not have contributing active, productive roles that are consistent with and valued by society" (Nightingale & Wolverton, 1993, p. 472). Nightengale and Wolverton (1993) framed this rolelessness of adolescents and our social constructions of education. The authors expressed that educators must acknowledge the difficult dilemma the students face at this age.

Adolescents have no prepared place in society that is appreciated or approved; nonetheless they must tackle two major tasks, usually on their own: identity formation and development of self-worth and self-efficacy. The current social environment of adolescents makes both tasks difficult (p. 472).

In order to promote student engagement and diminish the students' sense of 'rolelessness' educators may need to meet the needs of students who did not relate to their classroom instruction and did not develop empathy and commitment towards their community. This educational focus meant that our present 'accountability curricula' would have to be more socially attuned to the needs of adolescents (Glasser, 1998, Rockwell, 2002). Glasser (1998). strongly supported the importance of the engagement of students and their levels of commitment. However, he supported this concept without educators discounting the importance of the socialization of adolescence.

Encouraging students to develop greater empathy for other people, a commitment to the community or a respect for the environment often starts with meeting one or more of their more immediate needs (p.18).

If the rationale for promoting student engagement was to "foster adolescents", than according to Levesque (2002) schools were not attaining this goal (p. 6). Levesque (2002) delved into how blatantly educational reforms did not promote adolescents to become caring and productive members of their communities (p. 6). If there was agreement between educators and policymakers that education has a 'social' role in educating children, than adolescents needed to have engagement in learning to fulfill their social roles (p. 5). The author acknowledged that even though other institutions were 'challenge' to respond to the needs of adolescents "only public schools must accept and transform all adolescents so that they become productive citizens capable of contributing to a democratic society" (p. 5). Levesque (2002) focused on a major discrepancy between educational reform and the lack of focus on adolescents. The discrepancy was grounded in the dilemma of how educators promoted accountability reform measures which

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did not address adolescents' needs in schools. "Recent efforts to impose national standards are grounded on the need to address the nation's economic vulnerability, not adolescent individual needs" (p. 7). Levesque (2002) believed that the necessity for the engagement of adolescents in their learning was based on the premise that "[e]ducation seeks to enable students to gain the skills necessary to become knowledgeable and productive social participants" (p. 131). However, the author provided caution for educators when assessing adolescents.

> Key peculiarities of the adolescent experience impact the extent to which adolescents can be judged on adult standards and the extent to which adolescent development may require its own standard. The distinctiveness of adolescence raises important considerations when designing policies that the adolescent period may require in order to ensure that adolescents actually develop to meet adult standards (p. 165).

Levesque (2002) provided a compelling rationale for educators to consider the merit of student engagement for adolescents. He made the provocative comment that "[d]espite pervasive agreement among commentators that schools fail both adolescents and society, reform proposal paradoxically fail to focus on adolescents and their place in society. A close look at current discourse about educational policy making and educational reform reveals that it has virtually nothing to do with adolescents" (p. 17). The author admonished curricular models that disregarded comprehensive images of adolescents both as individuals and collectively (p. 10). He defined education's 'social' role, which necessitated reconstituting schools as "effective communities, not simply learning communities, that orient concern toward adolescents' actual needs and their proper place in society" (p. 130).

Levesque (2002) also presented the concept of the development of student 'voice'. This concept of student 'voice' was highly regarded throughout literature. This concept also directly related to student engagement and adolescents' social development. Society required each of us to adapt socially in certain ways, this placed specific demands on schools and students as

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students assimilated socially acceptable 'values' (p. 131). "The need to engage with others takes reform in important directions. These directions are particularly significant to consider as they highlight the extent to which programs cannot hope to achieve change through isolated experiences; Curricular programs must address the moral atmosphere of schools" (p.131). Further consideration of Levesque (2002) and his concepts to promote student engagement through the facilitation of student voice will be presented with other 'future considerations of student engagement.

Elias (2001) who served as a co-developer of the *Social Decision Making/Social Problem Solving Project,* provided and excellent summary of the necessity of student engagement for adolescents. He identified the "A, B and three C's" of developmental strengths that schools should encourage in students to facilitate student engagement. These strengths were 'appreciation', belonging', 'confidence', 'competencies', and 'contributions'. Elias (2001) believed that when these strengths were accentuated in students, within the context of student engagement for adolescents, they helped adolescents to identify their emerging roles in society.

> "[T]eens are looking for places where they have a role or purpose; where they can find positive peer relationships with others who have similar interests and abilities; and where they can learn things" (Elias, 2001, p. 3).

1.1.6.3 Definitions of student engagement

The term student 'engagement' had become an "empty and superficial, catch-phrase or slogan" (McMahan & Portelli, 2004. p. 60). The authors continued with a definition of engagement that was 'traditional' as in observable student behaviors. When engagement was focused on "specific procedures, strategies, and skills that teachers ought to develop or implement in order to secure engagement" many educators and policymakers neglected to assess and define student engagement from the students' or teachers' internal perspectives (p. 60). The

internal perspectives of persons included their social, emotional development and how these perspectives were addressed externally in their learning or teaching environment.

> Consequently most of the definitions of student engagement offered as well as a majority of the empirical work conducted on student engagement fail to address substantive ethical and political issues… (p. 60).

Empirical work on engagement and the definitions developed relied heavily on student observations and 'time-on-task' with little emphasis on the internal measurement of the students' attitudes towards learning (p. 60).

McMahan and Portelli (2004) identified three types of student engagement: 1) 'conservative or traditional' (p. 62); 2) 'liberal or student-oriented' (p. 65); and 3) 'critical-democratic' (p. 70). The authors were proponents of the 'critical-democratic' type of student engagement because this method of engagement was not assessed through teaching techniques or student and teacher behaviors. Instead their definition of 'critical-democratic' engagement provided students with "processes and relationships within which learning for democratic reconstruction transpires" (p. 70). The development of an overview of the three methods of student engagement presented by the authors led to a comparison and understanding of the authors' rationale.

McMahan and Portelli (2004) indicated that 'conservative/traditional' and 'liberal' student engagement strategies provided for the status quo in education (p. 61). In conservative or traditional engagement, student engagement was perceived positively with the students' academic success. It "is almost exclusively identified with a certain conception of academic achievement or a process of identifiable by behavioral traits and/or observable psychological dispositions" (p. 62). Application of student engagement was made across the board regardless of difference in "contexts or needs", a "linear or a simple cause-effect characterization" of

student engagement occurs (p 62). The students' roles were minimal, in that they were not consulted or considered in the development of meaningful engagement and the ensuing curriculum. The teachers were perceived as directors with full responsibility for curriculum development and implementation. The premise was that "engaging work stimulates students' curiosity, creativity, fosters positive relationships with other…Engagement was goal driven, identified with academic success" (p 62). This type of engagement favored students who accepted basic concepts current in educational trends. An example of a basic concept was that motivation led to academic success which led to success in life (p. 62).

In their discussion of liberal or student-oriented engagement the authors moved away from success in academics and focused on the students' strengths. This method of student engagement did include all types of learning "including personal and vocational" (McMahan & Portelli, 2004, p. 65). Liberal or student-oriented engagement provided for some 'student voices' in curriculum and school learning environment. When liberal or student-oriented engagement was compared to conservative or traditional engagement, it appeared to provide more of a sense of belonging for the student than actual empowerment by the students:

> At its highest level, engagement is seen in the form of membership which "occurs" when students internalize the feeling that they "belong in school—both that they are a conspicuous part of the school environment and that the school is an important aspect of their own experience (McMahon & Portelli, 2004, p. 66., Finn & Voelkl, 1993, p. 20).

The comparison with the conservative and liberal methods, showed the critical-democratic form of student engagement provided students with a substantial 'voice' in the learning environment. Critical democratic student engagement was viewed by the authors as different from conservative-traditional and liberal-student oriented "qualitatively"…it has both a procedural and a substantive aspect. This student engagement was not just a matter of

"techniques, strategies, or behaviors" (McMahan & Portelli, 2004, p. 70). The students were participants in the process of their engagement. This was referred to by the authors as 'participatory democracy'. 'Participatory democracy' was described as 'critical inquiry. "[C[ritical inquiry is seen as an inquiry whereby students and educators develop knowledge, skills, values, dispositions and actions that are called for by a reconstructive conception of democracy" (p. 70). This 'development' involved ongoing participation between the students and educators for the purpose of successful student engagement in their learning (McMahan & Portelli 2004, p. 70).

A definition of student engagement presented by Gibbons (2004) included two 'curricula concepts' which were developed to assist adolescents in engagement. The first was a 'developmental curriculum' in which students addressed who they were and would become (p. 464). "The main theme of developmental curriculum was change—change in students, change in their relationships with those around them, and change in their place in the world" (p. 464). The author added that self-directed learning, learning from the students' perspective outward, was helpful for the students who struggled with their developmental tasks and their goal to assume their roles in society. "This [developmental curriculum] is a powerful, experiential curriculum. Self-directed learning—by combining freedom with responsibility, reflection with action, and challenge with opportunity—is very compatible with these demands of development" (p. 464).

Gibbons (2004) also identified a 'social' curriculum. In a social curriculum there were numerous interpersonal tasks for students. "They [students] need to interact with others to learn about themselves, to learn adult social skills, to accomplish what individuals can't, and to learn

from one another" (p. 464). The author added that self-directed learning was also aligned with

social curriculum:

> In self-direction students often learn with other students in partnerships, groups,
> teams, seminars, and advisories; they often learn with adults in the community as
> well as in the school; and they learn from extended travel and cooperative work in
> the field. Learning to accomplish tasks   with others is excellent preparation for
> doing them independently, just as working together prepares students for the
> social nature of family life, work and recreation (p. 465).

Gibbons (2004) wrote that self-directed learning encompasses self-motivation. The

students began to identify their goals and interests and motivation and find a flexible learning

environment that "permits adjustment, problem-solving, and improvements" (p. 465).   This

same learning environment promoted their engagement by providing

> …receptive, responsive environments; they work within a system of constructive
> feedback, support, and assistance form others; they train in skills, processes, and
> systems that empower them to be productive; they experience success under their
> own direction in real-world situations (p. 465).

Not only was there a continuum between student motivation and engagement, but there was a

continuum from students' engagement in learning to their experiences in real-world situations (p.

465).

Rockwell (2002) identified that students who were especially prone to exhibit more

maladaptive patterns of adjustment both cognitively and social-emotionally, often did not

"experience a sense of belonging, achievement, or power through school-related activities" (p.

16). 'At-risk' adolescents, who were more prone to these maladaptive patterns needed a strong

'social curriculum' to promote engagement in their learning (p. 16).

In summary, definitions of student engagement included observable student behaviors as

well as internal student perspectives. Internal student perspectives; social, emotional, and

intellectual, had an effect on the external or 'behavioral' aspects of student engagement. Most

research about student engagement was heavily 'quantitative' analysis; 'time-on-task' versus 'qualitative'; 'attitudinal' or 'perceptive' measurements of students' activities (McMahon & Portelli, 2004).

The 'traditional' or 'quantitative' methods of measuring or evaluating student engagement were not relevant. This also applied to highly successful academic students who chose to just 'plug in' and follow the road outlined for academic success without true engagement in their learning. A more honest assessment of student engagement, when students were involved and committed to the learning process, included focus on the students' strengths. These strengths students developed from student-oriented, personal curricula about the students' innate abilities and 'sense of belonging' (McMahon & Portelli, 2004).

'Self-directed learning' was a method supported by Gibbons (2004) that followed closely with McMahon and Portelli's (2004) concept of students as participants in their learning. 'Social' curriculum was aligned with 'self-directed learning' so that student engagement was accomplished through the students' interactions with their peers and others both inside and outside the classroom. 'Self-directed learning' promoted self-motivation and a sense of student empowerment Rockwell (2002) followed that without a sense of belonging, students exhibited more maladaptive, non-engagement behaviors toward learning. Therefore, a strong 'social' curriculum and 'self-directed learning' were a means to promote the student engagement.

1.1.6.4 Current practices in student engagement

Cushman (1994) believed in empowering students. He considered students the essential 'missing link' to school reform "Students are too often the forgotten heart of school reform" (p. 1). He addressed the concept that if students were school reform's major purpose and resource, "…how can their power be nurtured and tapped as schools work toward more active learning,

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more personal and decent school climates, and higher standards and expectations?" (p. 1). Cushman (1994) also believed that educators and policymakers did not encouraged students to be agents of their own education instead of subjects within it (p. 1). He provided the example of student council planning the prom, but disciplinary issues were only handled by the principal. These 'token' student involvements with school policy and practice were not true student engagement strategies, but instead tokenism of student empowerment (p. 1). The strongest point emphasized by Cushman (1994) was that vital roles developed for students in the invitations to them to participate and evaluate their instruction and their goals. One of these roles included the facilitation of the students' abilities to "reason things out on their own". However, this required educators to "ask them (students) to come up with the questions, not just the answers" (p. 1).

Cushman (1994) strongly promoted the concept of student evaluation. To encourage student engagement in learning, it was necessary to first invite students to set up and evaluate their own goals. The students' set up and evaluation of their goals led to the engagement itself. "[H]aving decided where they're headed; students can participate in shaping the route they will take to get there" (p. 1). If engagement was an ongoing process, rather than an absolute behavior, than students' participation was essential to engagement reforms. Cushman (1994) advocated student involvement in curriculum design and implementation rather than traditional student-held responsibilities in schools. These "empowerments' for students in academic issues between themselves and the teachers and administrators also had strong social and behavioral components for the students in their development of decision-making, group interactions and democratic processes. The author further elaborated on this concept as 'participatory democracy' wherein students learned how to function as citizens in a democratic society. The 'ongoing

process' of engagement fulfilled the students' needs to learn the method of participatory democracy and how to function as a citizen in a democratic society (p. 4).

Group work for students provided opportunities for them to develop 'democratic' interpersonal skills. Many schools were promoting student engagement through improved methods of student group work "Group work provides a context for the externalization of thinking" (School Reform WebCenter, 2004, p. 3; Cushman 1994, p. 1). It was important for students to integrate others' perspectives to create more "complex understanding" within themselves. There were also crucial social and emotional aspects for adolescent development that group discussion and group work enhances (School Reform Web Center 2004, p. 3). In the School Reform WebCenter (2004). Piaget was quoted. The educational psychologist emphasized the importance of group work for student engagement:

> When I discuss and I sincerely seek to understand someone else, I become engaged, not just in avoiding contradicting myself,…but also in entering into an indefinite series of viewpoints other than my own…It is a moving equilibrium (School Reform WebCenter, 2004, p. 3, Piaget, 1977/1963: 684).

This concept of student engagement had a participatory connotation for students in which "[s]tudents are the actors in the performance of learning" (School Reform WebCenter p. 1). Previously, curriculum had been aligned sequentially, that was from easiest to most difficult. Educators envisioned students passing through from simple to complex tasks (School Reform, 2004, p. 1). Yet if students were the 'actors' in education, then the students' personal experiences and ideas should have been very relevant to promote their engagement in learning. Group work "provides a context for the externalization of thinking" Group work encouraged the students to express their thoughts and listen to the perspectives of others. Multiple perspectives included enabled the students to understand the development of their own perspective(s) and

those of others.   Group learning was considered to create "complex understanding of situations" (School Reform WebCenter, 2004, p. 3).

The School Reform WebCenter (2004) accentuated the importance of group learning for student engagement. The basic concepts of adolescent development lent themselves to 'socialize' learning.   The idea of 'participatory' learning enabled adolescents to find relevancy in their learning through application of their own experiences. Most importantly for the adolescent was that 'participatory' learning encourages the student to include others' perspectives.

Fletcher (2003) identified a concept called "Meaningful Student Involvement" through The Freechild Project, a Canadian based "resource agency and advocacy group for young people seeking to play a larger role in their communities" (p. 25).   In the concept of "Meaningful Student Involvement' Fletcher (2003) proposed that involvement of students at a young age led to the students involvement as citizens in their communities when they were older (p. 22). The author identified that student engagement should be relevant to a democratic society. "The complex leadership skills and applied learning that all students can experience through "Meaningful Student Involvement" serve as vital components in any education system and society that calls for more engaging, sustainable and just democracy" (p. 22). Fletcher (2003) correlated student engagement with "meaningful student involvement'. His idea was that more meaningful student involvement promoted student engagement. However, the importance of this occurring at a younger age for students indicated that the students were more involved citizens in adulthood. Not only then is student engagement a tool for education, but it becomes a tool for "cultural and civic engagement" as well (p. 6).

This current engagement model moved away from traditional standardized testing to assess student knowledge and relied more on demonstrated knowledge as students work with

problem-solving in 'real-world' and 'community' contexts (Fletcher, 2003, p. 12). Like Cushman (1994) and Fletcher (2003) promoted a refreshing view of how educators perceived students in the learning process. Rather than students being the "potential beneficiaries" of school reform, students may be considered as "participants" of the reform (Fletcher, 2003, p. 4.).

Many of the aforementioned resources encourage students to discuss, to be included, and 'engaged' with others to promote a positive learning environment. However, even though many positive methods of student engagement have been identified "individually, to strengthen academic performance through relevancy and relationships; collectively, to promote lifelong learning through academic, cultural and civic engagement for all students" (Fletcher, 2003, p. 6) the question remained of how to assist students to become engaged?

Fletcher (2003) identified that students do not inherently know "*how to be* meaningfully involved in their schools likewise, most educators struggle to figure out *how to* meaningfully involve students" (p. 12). One method used to address this dilemma for students and teachers was for the creation of "collaborative learning communities" (p. 12). This method encouraged the creation of student-adult partnerships both in an out of school. But from the development of the partnerships arose another dilemma identified by the author. That is, students began to understand that they do not know what they need to know. "However, there is growing tension that emerges when students begin to realize that the *way* they learn is hindering them from *what* they are actually supposed to be learning" (p. 17).

Current practices in student engagement moved away from 'manage' school reform to 'student-centered' practices that saw students as the focal points of reform, not the product. Cushman's (1994) promotion of students' evaluations in the process of engagement invited students as well as educators to view engagement as a 'process' in which students actually

develop goals. By enabling students access to their own learning, engagement was possibly made easier for them because of their sense of inclusion. Cushman (1994) considered student empowerment which could have provided the students with the means to develop better decision-making and interpersonal skills. Throughout the research many avenues were identified in which student participation led to improve student engagement. However, the dilemma still came into focus as to how to meaningfully involve the students. This led to the future considerations of what direction student engagement could have taken.

1.1.6.5 Future considerations for student engagement

A Canadian study of 10 schools provided new concepts for consideration about what it means to 'engage' students.   The study "Student engagement in learning and school life: The executive summary" (1998) entailed a "multiple case-study using a qualitative design perspective, where the "school in context" was the primary unit of analysis" (p. 1).   The framework of the study was developed with the adage in mind that "[i]f you want to know what a school is *really* like, ask the kids" (p. 13). The 'definition' of student engagement remained elusive in the study. However in the study researchers utilized two 'strands' of identifiable behaviors in students. They were the students' individual investment and collaboration with others (p. 1).

This study accentuated listening to the students from the "inside-out" perspective. It was an innovative perspective of engagement in which the students' internal qualities were identified. The movement of student assessment was from this internal student level and moved outward. The levels progress outwardly from the student, to the classroom, to the school, to the family and school environment or community (p. 1). What occurred in this type of engagement structure was unique. Educators look at students' individual learning interactions or "micro processes"

and then provided facilitation of conditions that were positive one level 'up' or 'outward' in the learning environment (p. 3). A diagram of this structure was described to show the innermost core as the students' area and "nested layers" drawn outwardly around the student to the widest outward point of the school environment or community. The importance of this concept was that it changed educators' emphasis in student engagement. The student was no longer expected to adjust to the school environment. Instead, the school environment was created from the students' community (p. 3).

What could have occurred in this structure of student engagement was that the engagement was directly related to and grounded in the schools' philosophies of education. "In the end, what it means to engage students and the forms engagement takes within particular schools is determined by the given school's notions of the larger purposes of schooling" (Student engagement…1998 p. 6). This study promoted the idea of education as 'democratic transformation', that was "education in the service of preparing students not to fit into a given world so much as to understand and transform the world as given" (Student engagement…1998 p. 6). In the study it was also identified that future considerations of student engagement must include that not only was knowledge not stable, but more importantly social differences and political consequences whether in the classroom or across the world directly affect knowledge and learning. "[S]tudents are challenged to think about what they know, and about the how and why of knowing" (Student engagement…1998, p. 6).

In the study of Student engagement (1998) four critical aspects of future considerations for student engagement were identified: 1) curriculum as experience; 2) curriculum as critical practice; and 3) pedagogical approaches and practices; and 4) the role of the teacher (p. 7). In 'curriculum as experience' there was a student-centered approach to teaching, with the focus on

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the student and not the curriculum being taught. Students were engaged because the activities interest them, but the curriculum was secondary to the students' involvement in learning (p. 7).

In 'curriculum as critical practice' a higher and more integrated student engagement ensued "Knowledge is not fixed but provisional and debatable" (p. 7). Within this environment there was room for inclusion of students' voices, because the purpose was to connect the students' experiences with the curriculum and then promote connections between the experiences and curriculum (p. 7).

'Pedagogical approaches and practices' reinforced the students' voices even further than in 'curriculum as critical practice'. There was a dominant role of the teacher and student relationship and its effects on learning along with very little separation of content and subject matter taught from the student and teacher relationships. There was an active learning approach on the part of the students in this approach and many connections between the students' lives and the curriculum. Finally, the 'role of the teacher' was a very significant factor in student engagement. "Students found human and relational qualities of teachers more significant to their engagement than questions of technique or method" (p. 7). Teachers identified students in ways that affected student engagement. For example the connotation of students as "empty vessels" or someone "to process" did not promote the students' view of teachers as caring. This breakdown of the student teacher relationship has direct bearing on student engagement (p. 7).

1.1.7 Bridge to Methodology and Background Rationale

McMahon & Portelli (2004) espoused to engage pedagogy as "engaged students, teachers, communities, systems and structures" (p. 71). The authors elaborated further and provided caution to educators that if we align engaged students and teachers and teaching

methods with the concept of a 'democratic framework' than we are left with different notions of "meaning and enactment" of student engagement. This occurred because the use of 'democratic framework' lent itself to use of "conflicting notions of schooling and all the aspects discussed about student engagement" (p. 71). To reiterate a point made earlier by the authors, "[e]ngagement is realized in the processes and relationships within which learning for democratic reconstruction transpires" (p. 70). Most importantly, engagement was present between students and teachers, generated mostly by their interactions which enabled the students, through "shared space", to begin or continue their personal growth. Student engagement was a "critical democratic process" which facilitated not only student learning but promoted the students' ability to inquire with teachers about their knowledge and skills. It was important to note that this 'critical inquiry' was inseparable from other aspects of the students' development and their lives (p. 70).

The standards movement, backed by the NCLB Act, strongly encouraged 'accountability' for educators in their pedagogy. The standards movement may have diminished many aspects of educational reform of which many were identified as vital to improved high school education (PAVA, 2004; National Center for Education Statistics, DOVE, 2004; United States Department of Education, Office of Vocational and Adult Education, 2004; *Kids Count Data Book*, 2004). Two of these aspects of educational reform improved engagement of students in their educations and student ownership of their learning. Student engagement and student ownership had been intrinsically tied together so provisions for either usually enhance the other. Students became the 'actors' in learning.

The standards movement has currently stipulated learning in today's schools. What has been missing is student ownership of learning and educators' valuing of student initiatives

(PAVA, 2004; National Center for Education Statistics, DOVE, 2004, United States Department of Education, Office of Vocational and Adult Education, 2004; Kids Count Data Book, 2004). As indicated by Lynch, (2004) vocational education is at the "crossroads, and that vocational education needs to be "reorganized" and "redirected" (p. 4). If 'at-risk' students need additional focus to retain them in high school, the experiences they obtain in work-based learning may be crucial to this goal (Johnson & Johnson, 1991; Damico & Roth, 1993, Sanders, 2000).

Sanders (2000) indicated that work-based learning was a positive method of instruction for at-risk students (pp. 13-14). And 'at-risk' and other 'special populations' students comprised almost half of some vocational programs recently. There were strong indications in the research that a focus on the students' career objectives was vital for 'at-risk' and other 'special populations' students. Engagement for 'at-risk' students in vocational programs, when other considerations were met, was identified as vital (McMahan & Portelli, 2004; Fletcher, 2003). The other considerations which had to be met for positive student engagement included proper career guidance, identification of each student's needs with better assessment techniques, and adequate educational support for their vocational placement to assure the students' success (Sanders, 2000, p. 5). Sanders (2000) continued with questions that directed educators not to assume that 'at-risk' or any students were accountable for their education. The author believed "that knowledge and learning were too interdependent to place the responsibility for outcomes solely on the learner" (p. 5).

'Meaningful student involvement' was a vital component in any change about student engagement (Fletcher, 2003). In order to promote improved student engagement and ownership of their learning, educators may need to determine whether and how students are engaged and their levels of and abilities to take ownership of their learning. Students may then become the

'participants' of school reform, rather than only 'potential beneficiaries' (School Reform Web Center, 2004 p. 1; Fletcher, 2003). Most importantly, the question arose as to how to assist students to become engaged (Fletcher, 2003). Certain teaching strategies and student engagement promoted 'meaningful student involvement'. For example, Fletcher (2003) encouraged collaborative student-adult partnerships (p. 12). Therefore, teacher strategies to promoted positive student and teacher interactions became vital links to student engagement (Student Engagement, 1998). McMahon and Portelli (2004) supported a concept of engagement that was between students and teachers, generated mostly by their interactions which enable the students through "shared space" to begin or continue their personal growth (p. 70). The authors added that inquiry occurred with the teachers and this inquiry was not separated from the students' development and their lives (McMahon & Portelli, 2004 p. 70).

In 'meaningful student involvement', students were 'evaluators' and they provided "purposeful assessments that had an effect on their entire learning experience" (Fletcher, 2003 p. 19). These assessment strategies include most aspects of the students' relationships with peers, teachers, and even self-assessment (Fletcher, 2003, p. 19). However, for these assessments to occur, Cook-Sather (2002) acknowledged the need for "authorizing student perspectives". This meant that teachers may be required to ensure that students have a forum for their voices. The teachers also needed to adjust their perceptions to allow for what the students not only express, but how teachers respond to their expressions (p. 4). Cook-Sather (2002) continued to validate this need to authorize students' perspectives because of "[d]ecades of calls for educational reform have not succeeded in making schools places where all young people want to and are able to learn" (p. 9).

Certain teaching strategies have been identified by researchers to positively affect student engagement and learning (Hall & Smith, 1999; Cook-Sather, 2002; Sutherland, Wehby, & Yoder, 2002; Fletcher, 2003). Some of these successful teaching strategies are implemented by vocational teachers. For example, Hall & Smith (1999) specifically identified how vocational teachers used an 'explanatory style' in their interactions with students (p. 1). The authors added that there were two types of personality traits identified in teachers interactions with students. The 'optimistic' teacher assisted the student to see things occurring around them as external, temporary setbacks and not the students' faults. However, the 'pessimistic' teacher often led the students to internalize events. The students were encouraged to believe that bad things occur for extended times and affect most of their lives, and also were their faults. How students perceived the 'optimistic' or 'pessimistic' teachers' responses had an effect on the students learning (p. 2).

Positive communication between the students and teachers appeared to be fundamental for student engagement (Sutherland, Wehby, & Yoder, 2002; Raising the educational…2004; Raymond, 2001; Russo, 2004). As teachers continued to respond with new teaching strategies developed from the structural changes of school reform, it was evident in the research that there was a close relationship between structural changes and how teachers responded to the students, especially how they interacted with students. One example was the concept of teacher praise in communication with students, along with the facilitation of the students' responses in learning situations. Sutherland, Wehby and Yoder, (2002) suggested that there were two 'critical components' of teaching. First was the "rate at which students are given the opportunity to actively respond to academic requests (OTR), and second is the number of praise statement students receive for appropriate academic and social behavior" (p. 1). Raymond (2001) added that students must be included participants in what occurs in schools. The author suggested that

"[s]tudents feel engaged and involved as equals from the outset. In this way, they can then begin to establish different and better relationships between their teachers…" (p. 59). And Russo, (2004) identified methods similar to 'coaching' techniques that teachers could utilize in in-service programs to promote better teaching strategies with students.

Assessment of students' engagement in learning may require a new definition of what engagement means and how students' relay their engagement both in behavioral and psychosocial means. Peck (1978) provided an exceptional thought on communication which seemed to be at the crux of engagement. "If we want to be heard we must speak the language the listener can understand and on a level at which the listener is capable of operating" (p. 154). Therefore, assessment strategies may need to include the concept of communication and understanding in order to be valid. McMahon and Portelli (2004) addressed the need for the definition of engagement be based not exclusively on external, observable behaviors by the students, and that;

> . . . [c]onsequently, most of the definitions of student engagement offered as well as the majority of the empirical work conducted on student engagement fail to address substantive ethical and political issues related to student engagement (p. 60).

McMahon and Portelli (2004) referenced to Steinberg (1996) in their identification of a 'strong sense of engagement' seen in students who are motivated to do well in school (p. 70). Steinberg (1996). perceived engagement as positive actions on the students' parts and disengagement as negative actions by the students (McMahon & Portelli, 2004, p. 76). If empirical data was determined by practical experience and observation, than this form of assessment may not prove helpful to assist students who are in the process of changing to a new school environment. In the report, "Student engagement in learning and school life: The Executive Summary" (1998) educators were presented with the identification of student attributes associated with their engagement in learning. Caution was noted that

> student engagement begins with the student and is manifested through various behaviors. And although some behaviors may typically be associated with engagement,

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it is misleading to construe the meaning of engagement from any particular behavior or to construe disengagement from the absence of these behaviors (p. 13).

Contradictory research on high school student engagement is provided by Viadero (2004) in her review of the "High School Survey of Student Engagement" (HSSSE) developed by researchers at Indiana University initially for college students but later modified and replicated for high school students surveys. The survey sought to "get beyond what students know to find out more about their behavior and day-to-day learning experiences." The survey was described by the writers of the Indiana University website as a tool to "assess the extent to which high school students engage in educational practices associated with high levels of learning and development" (Indiana University website, p. 1). An important contradiction of this empirical student survey, when compared to the ethical and/or political issues involved in student engagement, was that the survey included aspects of school functions that relate to pedagogy and school climate and not student engagement issues (Indiana University website, p. 1).

This shift of focus away from the students' engagement in learning to the external contributors of disengagement may have misdirected the inclusion of much needed research on the internal dynamics of the student and his or her ability to make commitments, establish relationships, and develop leadership skills associated with the kind of student engagement that is self-motivated. With internally motivated engagement "the student is focused on his or her own learning, has a recognized stake in it and takes part in establishing what he or she wants to learn" (Student engagement, 1998 p. 13). This concept was called the "inside-out" perspective because of the establishment of the viewpoints closest to the students, internally, and then the inclusion of facilitation of better conditions for engagement in the learning environment as the "outermost core" (Student engagement, 1998 p. 1, 3).

Engagement then becomes more a part of the students' learning process and school life than observable study habits and reading or math abilities. The focus of assessment may need to be on the students and not the curriculum. And most importantly,

> an attempt is made to connect the student's previous experiences and interest with the curriculum. Students engage because activities pique their interests; they are not necessarily engaged in the 'larger picture' that is quite different from the image of the dominant conceptions of curriculum (Student engagement, 1998, p. 7).

The National Academic Press, 2003 reported on Engaging Schools: Executive Summary provided an exceptional description of engaged students. Students were engaged in learning when "they are challenged with demanding learning goals, and…have opportunities to experience a sense of competence and accomplishment about their learning" (p. 4). Student engagement occurred with students "taking pleasure in their learning" and the students' beliefs that "the information and skills they are being asked to learn are important and meaningful for them and worth the effort." And finally, the students needed to believe that they could "reasonably expect to be able to learn the material" (p. 3).

In comparison, the Southwest Educational Development Laboratory (2004) provided the variables for student behaviors that led to and maintained student engagement. For example, school participation included attendance and frequent observations about the students' attention to their schoolwork. The four levels began with the earliest school years and followed the students through high school: In Level One the researchers provided for "students to be present and attentive, to be prepared, and to be responsive as directions or questions are directed toward them". In Level Two additional student participation "builds on level one, students are more than passive responders they take initiative to ask questions, to interact with the teacher and other students…go "above and beyond" the basic seatwork or homework assignment. In Level Three educators were encouraged to make identification of observable

initiative-taking behaviors that involves seeking out help when academic difficulties are encountered. These behaviors stem from the student's awareness and nature of the difficulty, a willingness and desire to master the difficulty.

In Level four the research "advocates student participation in important aspects of student governance, particularly as this has direct impact on students themselves (academic goals, discipline policies, etc.)" (pp. 1 - 2).

Another study entitled "Initiatives: School Engagement" (2004) outlined a concrete frame of engagement for educators with questions about the social and psychological aspects of engagement and disengagement in our schools. The definition of engagement used in the study identified three components in the students that "interact synergistically with each other" (p. 1). The first component was behavioral engagement, which was measured by completion of work, obvious attention and concentration. The second component was affective engagement, the emotional component, which involved the students' abilities to be persistence and deal with anxiety and even anger to increase their levels of participation. The third component was cognitive engagement, which involves the students going beyond the instructional level of learning to seek out additional information because of their interests (p. 2).

Lynch (2004) previously identified that vocational education was at the "crossroads, and that vocational education needed to be "reorganized" and "redirected" (p. 4). Presently, vocational education programs students are assigned to large blocks of time in a vocational setting. For example, many programs are half-day or week-about, so that students spend significant amounts of time with a vocational instructor (United States Department of Education: Bureau of Vocational and Adult Education, 2004). The large blocks of student-teacher interaction have proven to be beneficial to vocational students. But the reason why this occurs may need to be clarified to better understand student engagement and 'meaningful student

involvement' in vocational schools. Some reasons there are benefits with the large blocks of student-teacher interactions may include how the interaction time between the teacher and the students is developed beyond just time together. Vocational programs provide low student-teacher ratios, individualized instruction, competency-based education (CBE), and alternative assessments of the students. These particular methods may be advantageous to students who are at-risk or inclined to drop out of school. The smaller school size and lowered student-teacher ratio appears to promote stronger interpersonal student-teacher relationships, which may be attributed to diminished drop out rates and greater student engagement (Raising the educational…2004).

Vocational programs provide students with an opportunity to redirect the students' educations. Students usually make an "active decision" to enroll in these programs. The role of the student as 'decision-maker' earlier in their educations may also facilitate student engagement. "Seasoned observers of successful secondary schools report that allowing students some freedom in choosing their school community may lead to greater commitment and deeper engagement in learning" (Raising the educational…2004, p. 5). Most importantly, in the study it was identified how important it was to enable student choice as a 'precondition' to more student personalization. The researchers advocated that "[s]tudents who consciously select a personalized environment are more likely to contribute to its maintenance." Therefore, it may follow that when students choose a school or program there is also an "increased probability" that the student will accept the curriculum or 'academic mission' (Raising the educational…2004, p. 5). Also, students, who were enabled to make choices in their education, were found to encourage more student personalization which led to better acceptance of the curriculum by the students and its mission. "Students who consciously select a personalized

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environment are more likely to contribute to its maintenance", therefore, when students choose a school or program there is an "increased probability" that the students will accept the curriculum or 'academic mission' (Raising the educational…2004, p. 5).

Students' selections of vocational programs may be indicative of possible engagement and commitment to their learning. The component of work-based learning may be a crucial factor in to provide learning environments for further development of the students' engagement. 'At-risk' students often need additional focus to retain them in high school. The experiences they obtain in work-based learning may be crucial to their promotion of engagement and to assist these and other students to identify their career objectives (Johnson & Johnson, 1991; Damico & Roth, 1993, Sanders, 2000).   In the research it was noted that almost half of the vocational programs presently have at-risk or special populations' students. Therefore, the focus on career objectives is vital to maintain their engagement and facilitate their successful transitions from high school to work or postsecondary placements (Pennsylvania Department of Education, 2003, p. 8).

Another factor which may have affected student engagement in vocational schools was whether the students made a conscious, career-oriented decision to change schools? Or whether were the students' placements in the vocational schools more externally directed by their district schools' administrations? Rojewski, (1997) encouraged educators to be cognizant of whether vocational students have 'selected' or 'been selected' for vocational programs and how this could determine the level of engagement that may be present in the students entering the programs (p. 13). If there was a determination of socially excluding or tracking of students by the students' previous administration, the question arose as to how much initial engagement or commitment would these students have had when they entered the vocational programs? (Rojewski, 1997, p. 5).

The facets, dimensions, conditions and attributes about student engagement identified in the preceding research review were diverse in their assessment criteria, but similar in their goals. The research studies provided frameworks about student engagement in which the students' learning was promoted by understanding the 'processes' that have occurred or may need to occur for the students to learn.

1.1.7.1 Bridge to methodology: Background data of study group

The methodology will consider how the activities in vocational schools, especially work-based, can be used to assess the quality of the students' engagement. The premise that vocational curricula offer unique learning environments was evident in the literature. Competency-based and individualized instructions are primary methods of pedagogy in vocational programs. The students who enter vocational programs have unique and diverse capacities for learning. These student 'capacities' to learn may determine their abilities to 'engage' with a vocational curriculum. The students' experiences with engagement in vocational programs may affect on their choices of 'career objectives'. Not only is the identification of career objectives important for the students, but the level of the students' engagement may be a critical factor to their success in the vocational school and their career choices

The research for the study occurred over two school years, 2004-05 and 2005-06. The site for the study was a comprehensive (academics and vocational programs offered in same building) vocational school in a small Midwestern Pennsylvania county. The county endured a declining economic base after numerous manufacturing jobs were lost over the past three decades. The workforce had been gradually rerouted towards the service sectors and entry-level blue collar employment. The unemployment rate for the county over the course of the study hovered around 5.5%. The unemployment for the county was higher than the surrounding

counties by one-half to a full percent. The increased elderly population helped to sustain some professional employment, although the total population had declined in the same time period. The per capita income was low even with the inclusion of small pockets of affluent areas of income and housing. These demographics were consistent with many other semi-rural communities the surrounding Western Pennsylvania counties.

The surrounding counties also provided vocational programs to their secondary students through area vocational technical schools. The data was from the surrounding county area vocational technical schools enabled some comparative analyses to occur between the study school and these schools. Comparative analysis between the schools was used to indicate the academic and socioeconomic dimensions of the students in the study group with the students from the surrounding county area vocational technical schools or career and technical centers (*Pittsburgh Post-Gazzette*,10/31/06, p. A-9).

The eight school districts in the county which supported the vocational school and sent their students to the study school were also economically diverse. Two of the 'sending' school districts could have been classified as 'affluent', while the others ranged from middle class, rural, and/or economically disadvantaged. Therefore, the vocational school for the study was considered a 'melting pot', of sorts, for the students who attended it. A presumption was that the student population at the vocational study school would represent fairly equally academic and socioeconomic demographics that occurred in the eight sending districts. However, it was discovered that a high percentage of the student placements in the vocational school were for students classified as economically disadvantaged, special education or other special populations categories in a demographic report from the Pennsylvania Department of Education in 2005. The trend of skewed placements of high numbers of special populations' students in vocational

schools was not unique to the study school. Similar skewed placements of special populations'

students were found in all of the regional vocational schools. This phenomenon was considered

important to the research study because the very high percentages of special populations students

placed in vocational programs affect on student engagement levels in those vocational programs.

The following data the high and low placements of special populations' vocational

programs within each of the surrounding county vocational schools and the study school data are

indicated.   The data for the surrounding county Health Occupations programs were especially

noted because the students in the study were from a Health Occupations program. The data for

Health Occupations programs (HO) was also broken down further into the subgroups of

economically disadvantaged and educationally disadvantaged (Table 1.4).   High and low

percentages for special populations' students' placements in the surrounding county vocational

programs were also identified in (Table 1.4).

Table 1-4 Special Populations' Students Comparison of Western PA Regional Vocational Schools

SPECIAL POPULATIONS STUDENTS COMPARISON OF WESTERN PENNSYLVANIA REGIONAL VOCATIONAL SCHOOLS					
Schools	Number HO Students	HO Economically Disadvantaged	HO Educationally Disadvantaged	School Special Population Percentage	HO Program Special Population Percentage
A	20	5	2	65.7%	45.0%
B (Study School)	49	27	24	80.8%	83.7%
C	90	20	9	44.2%	47.9%
D	35	13	0	50.7%	42.9%
E	89	22	15	51.3%	43.8%
F	56	30	21	71.1%	82.9%
G	44	21	0	48.4%	63.6%

Pennsylvania Department of Education, 2005

The previous data of special populations' students in Western Pennsylvania vocational

schools was compared to the placement of all special populations' students in Pennsylvania

schools. Thirty percent of Pennsylvania's secondary students were classified as special populations. Special populations' students included economically disadvantaged and special education students. The number of special populations' students in Pennsylvania's secondary schools was noted to be lower than the placements of special populations' students in Western Pennsylvania vocational schools.

Another consideration in the study was the increased focus by educators on standardized achievement tests implemented in Pennsylvania with the implementation of No Child Left Behind. It was noted in the research that Pennsylvania secondary school students showed improvement in 2004-05 scores for the PSSA (standardized achievement) tests. However, vocational school students did not exhibit the same results. There was also strong evidence of disparity between the vocational students' results on the PSSA tests compared with the results of the state's academic schools (Table 1.4). In Table 1.5 a comparison of Pennsylvania's academic secondary schools and vocational schools PSSA results for 2005 is provided.

Table 1-5 2005 PSSA Scores for Pennsylvania's Secondary and Vocational Schools

2005 PSSA Scores for Pennsylvania's Secondary and Vocational Schools					
Programs	Math Advanced	Reading Advanced	Math Proficient	Reading Proficient	B Basic Math	B Basic Reading
Academic	37.5	50.0	38.7	41.3		
Vocational	0.0	4.0	9.6	25.6	79.2	56.0

Pennsylvania Department of Education 2005.

The disparity in the PSSA results between the academic and vocational secondary students in Pennsylvania was also noted at the local county level between the eight sending academic schools and the vocational study school. The study school vocational students' PSSA scores have been much lower since the inception of the test when compared with the PSSA scores of students from the eight academic sending schools. This information was pertinent to the study because it provided evidence of possible skewed placement of special populations

students in the vocational study school from the eight sending schools. And, as noted before, the

high percentages of special populations students placed in vocational programs may have had an

effect on student engagement and on the results of the study.

In Figures 1.1, 1.2 and 1.3 the Pennsylvania Department of Education's posted the 2005

PSSA results were graphed. The graph indicated the 11th graders who attended the eight

'sending' schools scored above the scores for the 11th graders attending the study school.

Comparative Scores PSSA Math Study School v Sending Schools
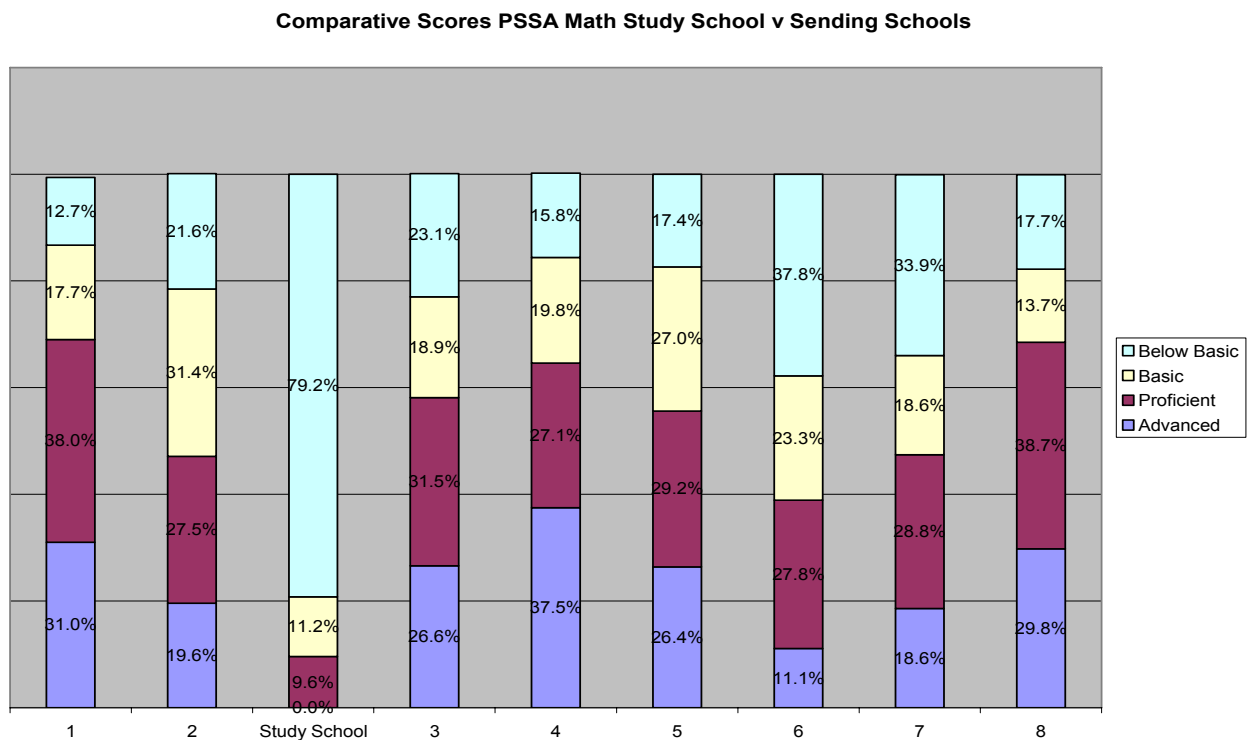
Figure 1-1 Comparison of PSSA Math Scores for Eight Sending Schools and Study School

Figure 1.1 provides the PSSA results for math which indicated that the study school

students performed significantly below the students from the eight sending schools. Math was

an important part of the vocational curricula. The students often needed remediation of math

skills during their first year in the vocational school.

The PSSA results for reading are provided in Figure 1.2 which indicated that the study school students performed significantly below the students from the eight sending schools. The vocational students were required to comprehend and apply complex material from vocational reading sources in the vocational curricula. The students often needed remediation their reading comprehension in the first year of their vocational school. Reading comprehension was a vital skill for the students in the Health Assistant program.

Comparative Scores PSSA Reading Study School v Sending Schools
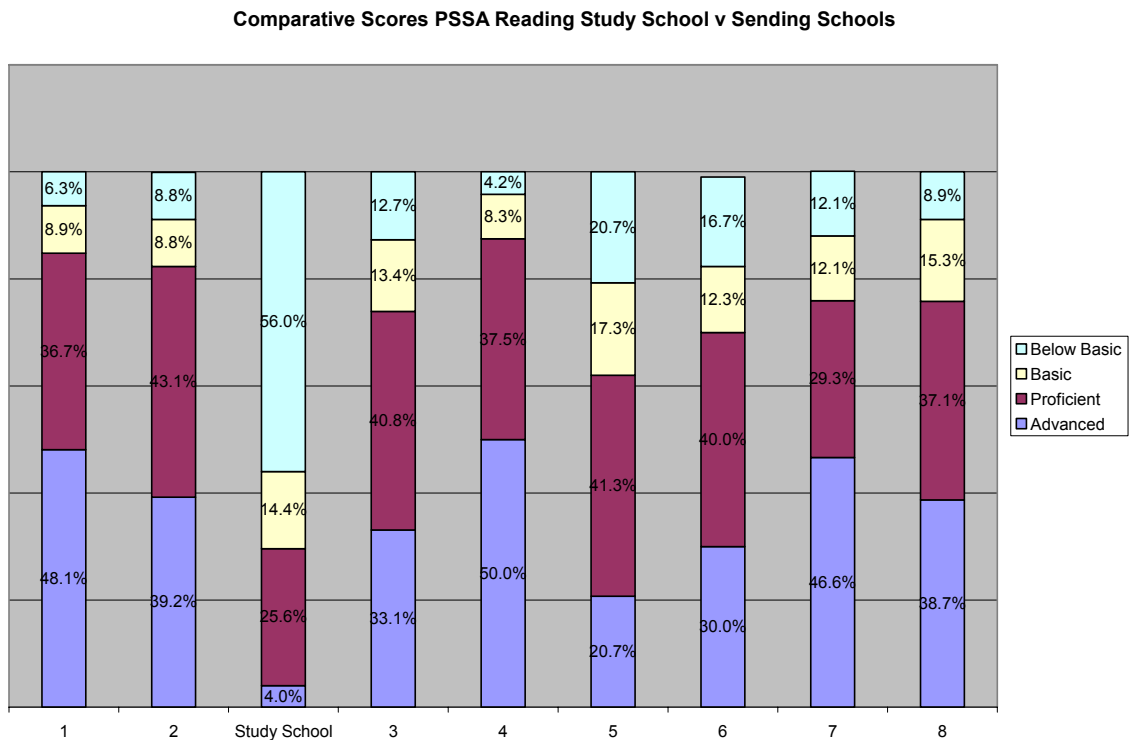
Figure 1-2 Comparison Of PSSA Reading Scores For Eight Sending Schools And Study School

The PSSA results for writing are provided in Figure 1.3 which also indicated the study school students performed significantly below the students from the eight sending schools. The writing skills of vocational students were also fundamentally important to their success in the vocational curricula. The improved PSSA scores for writing when compared to the PSSA scores

for math and reading for the students in the study school could have been attributed to the more open-ended type of test provided in the PSSA writing exam.

An important consideration would be the continued evaluation of the students in the vocational schools and the study school to determine whether the students make significant yearly progress in the PSSA exams. The factor that could affect the students' improved scores is the earlier identification of the students' academic disadvantages and subsequent academic interventions in the sending schools or in the academic programs within comprehensive vocational schools.

Comparative Scores PSSA Writing Study School v Sending Schools
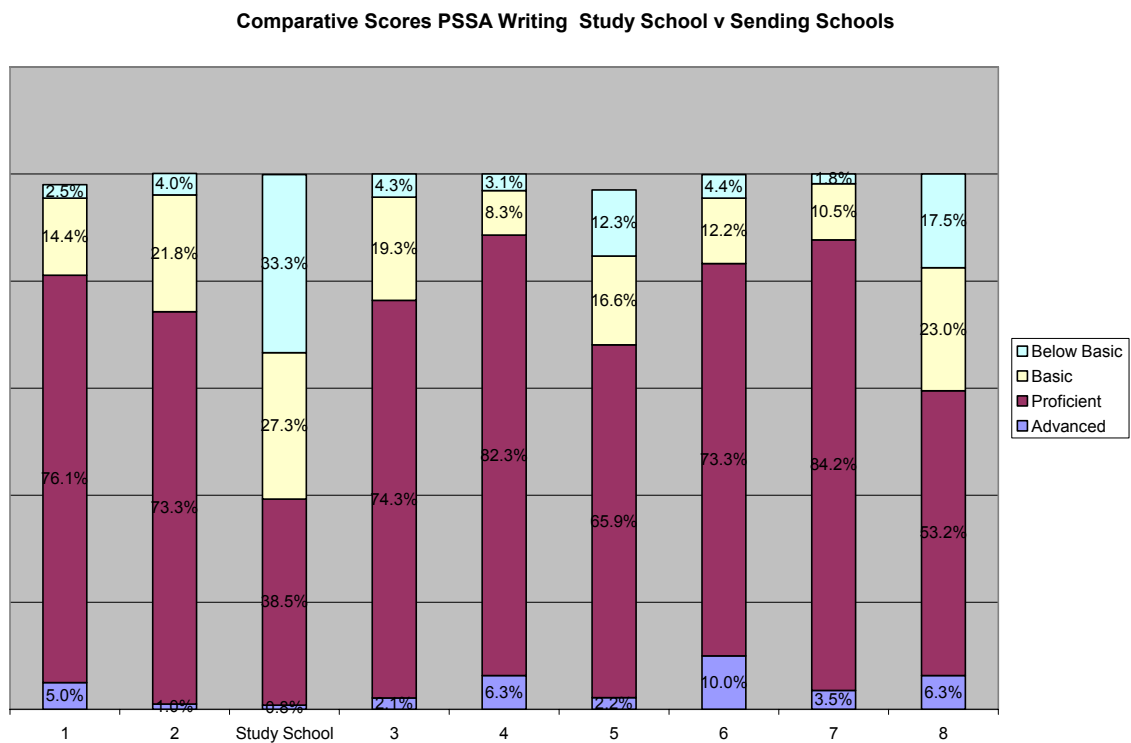
Figure 1-3 Comparison of PSSA Writing Scores For Eight Sending Schools and Study School

Pennsylvania's special education students totaled 264,005 of 1,828,089 or 14.8% of all of the school students. The sending schools, from which the students are placed in the study, reported similar percentages of special education students in these schools (Table 1.6). There

were few special education students assessed in the home schools for the PSSA. The question emerged about what accounted for the exceptionally poor PSSA results of the study school? It was unlikely that the eleventh graders, who took the PSSA tests in the vocational school, 'lost' their academic abilities in one year of attendance. Instead, there were noted high placements of special populations' students in vocational programs. Were the administrators of the sending schools strongly encouraging their economically and educationally disadvantaged students to attend the vocational schools or the same students overwhelmingly choosing a non-traditional, vocational education? Either answer would account for the high placements of special populations' students in the Western Pennsylvania regional vocational schools which included the study school.

Table 1-6 Pennsylvania Special Education Students 264,055 of 1,828,089 or 14.4%

Special Education Data from Eight Sending Districts				
School	Total Enrollment	Special Education Enrollment	Local Percentage	PSSA Results Grade 11
				Advanced/Proficient Reading Math
1.	2,180	309	14.2	Less than 10 assessed
2.	1,445	149	10.3	Less than 10 assessed
3.	1,981	213	10.8	0.0/8.3%
4.	1,326	127	9.5	Less than 10 assessed
5.	3,816	629	16.5	Less than 10 assessed
6.	1,380	171	12.4	Less than 10 assessed
7.	884	118	13.3	Less than 10 assessed
8.	1,586	296	18.7	25.1%/31.3%

Pennsylvania Department of Education PreK-12 Statistics (Note: When the sending schools had less than 10 special education students taking the PSSA there was no data submitted.).

Currently, the majority of vocational students complete their academics and their PSSA tests in the sending schools. The students are bused or walk to separate buildings for their vocational programs. However, there are 15 'comprehensive' vocational schools in Pennsylvania. The comprehensive vocational schools provide academic and vocational curricula. The comprehensive vocational schools administer the PSSA and the schools are rated

by the Pennsylvania Department of Education for the PSSA results. The high percentage of special populations' students in many vocational programs and the poor performance of students from the study school on the PSSA tests were two issues which received strong consideration for the proposal of a study about student engagement. The two issues, the skewed placement of special populations' students in vocational programs and the poor performance on the PSSA of students in the comprehensive study school may impact the research questions of student engagement for vocational students.

In a 'comprehensive' vocational school, academic and vocational skills are often integrated. The vocational curricula often require higher levels learning in the forms of application and synthesis of knowledge by the students in the areas of math, science, and reading comprehension. Application and synthesis of knowledge are important levels of learning for students to attain in order for them to succeed vocational education. The low PSSA scores for eleventh grade vocational students did not appear to indicate the students attained these higher levels of learning. Questions developed about the placement of the home school districts' lower functioning students in the vocational programs. Special education data was reviewed from the academic school districts' which was a part of their special populations totals. The data was compared to special education students who attended vocational schools. There appeared a significant difference in the numbers of special education students in the vocational schools compared to the academic school districts. Two possible conclusions could have led to this situation. First, the academic schools appeared to encourage a disproportionate number of their special education students to enter the vocational school. Or second, a disproportionate number of special education students were selecting a vocational education. The vocational schools had to deal with educational issues with their students that were in conflict. The conflicting issues

were vocational students should be capable of higher level application and synthesis of knowledge to perform well in the vocational programs; yet there were significantly high placements of special education students in vocational schools. The Health Assistant vocational program was selected for the study because the students were accessible to the Primary Investigator and the program curriculum was fairly advanced for high school students. High levels of reading comprehension, math, and science competencies were essential for the students.

1.1.8   Purpose of the Study

Students enter vocational programs for a multitude of reasons. Some are self-directed placements; others are guidance-directed placements or 'tracked' students. The students will enter from diverse socioeconomic and academic backgrounds. Often, the students are often socially, emotionally, physically and mentally or educationally disadvantaged. Vocational programs and schools are often seen as a 'half-way house' to the world of work. The students' diverse backgrounds will have an effect on their ability to learn. Learning is often associated with positive student involvement or engagement. The learning environment in vocational education environment is very distinctive. Vocational teachers encourage students to develop self-directed skills in learning and the teachers promote competency-based educational strategies. Vocational students often have great latitude in the 'structure' of the learning vocational environment which supports the competency-based, individualized instruction. Vocational teachers plan instruction which encourages independent learning for the students and promotes positive group instructions. Independent learning enables each student to progress somewhat at their own pace. Competency-based education (CBE) is used within the curriculum framework in which diverse learning styles are promoted. The students continue to develop their interpersonal skills which are fundamental for continued learning in vocational education. Simultaneously, the students

have an increased responsibility to facilitate their learning in the open learning environment. Therefore, the degree of engagement for students who enter vocational programs may have an effect on how well the students manage in student-directed learning environments.

Whether the incoming students are engaged in their educations and how soon these students become engaged, may also affect their career objectives. Work-based learning is a dominant portion of the curriculum in vocational programs. Student engagement may be enhanced by the strong work-based learning student experiences in the vocational curricula. The work-based components are vital in two ways. First, the students, especially those 'at risk', often become increasingly involved in their learning and thus engaged more readily when they are introduced to work-based learning. Secondly, work-based learning becomes a vital link for vocational students to identify and solidify their career objectives and postsecondary goals.

It is important to assess the students' processes of engagement periodically so that work-based instruction in vocational programs can be most beneficial to the students. And a crucial time to assess the students' levels of engagement occurs when the students first enter a vocational program. Many vocational schools do not enable students to 'reselect', or change their vocational selection very often. The students may be identified early in the school year who are not be engaged in their vocational education. Methods of student assessment and intervention may be utilized to assist the students and teachers to promote positive changes for students who are not engaged when they enter vocational schools.

The study will focus on how educators can assess vocational students when they enter the vocational school to provide information about the students' degree of engagement with their selected vocational program. The student assessments and feedback will provide the students, parents, and teachers with meaningful information about the students' career objectives and vocational program

selection. New vocational students may not have a clear or realistic idea of their career objectives and whether a vocational program selected is suitable for their goals. Also, the students' engagement may not be cultivated further if they remain in a misassigned vocational program. The misdirection of vocational students may lead to the students' further disengagement from school at a time when the selection of vocational programs was supposed to stimulate their engagement in learning and promote their career objectives.

1.1.8.1 Development of assessment tools

Assessment tools of interview questions to determine the engagement levels in students were developed from the previously identified engagement studies and research. Five 'qualities' of engagement in students appeared in at least two or more of the research presented. They are as follows:

1. Attention to work:	*National Academic Press (2003).
	Engaging schools: Executive Summary
	Challenging and demanding learning goals
	*Southwest Educational Development Laboratory (2004).
	Level 1: attention to work
	*Initiatives: School engagement (2004).
	Behavioral: (work, concentration).
2. Initiative-taking Behaviors:	*National Academic Press (2003).
	Engaging schools: Executive Summary
	Pleasure in their learning
	Opportunities to experience a sense of competence and accomplish-
	ment in their learning.
	* Southwest Educational Development Laboratory (2004).
	Level 2: students more than passive responders, take
	Initiative to ask questions, and interact with teacher and others
	Level 3: initiative-taking behaviors-seeking out help when
	Difficulties encountered
	*Initiatives: School engagement (2004).
	Cognitive: seeking out additional information
	Affective: persistence
3. Sense of connectedness of students' prior experi- ences with curriculum	*Student engagement in learning and school life: (1999).
	Executive summary
	Connect students' previous experiences with the curriculu

*National Academic Press (2003).
Engaging schools: Executive Summary
Information and skills students being asked to learn are important
and meaningful for them and with the effort

*Fletcher (2003). Meaningful student involvement
Students as evaluators so they may provide purposeful assessment
 that affect their entire learning experience

4. Positive inter-
  personal skills

*McMahon and Portelli (2004).
Between students and teachers there is interpersonal, 'shared space'

*Cook-Sather (2002). Authorizing student perspectives
 Teachers assure students have full forum of expression

*Southwest Educational Development Laboratory (2004).
 Level 2: Students more than passive responders-take
 Initiative to ask questions and interact with teacher and others
 Level 4: Student participation in student governance

*Initiatives: School engagement (2004).
Affective: deal with anxiety constructively

*Student engagement in learning and school life: (1999).
Executive summary
Students establish relationships, make commitments

5. Self-evaluation skills

*Fletcher (2003). Meaningful student involvement
Students as evaluators; they provide assessments that affects
their entire learning experience

*National Academic Press (2003).
Engaging schools: Executive Summary
Students can reasonably expect to be able to learn the material

*Initiatives: School engagement (2004).
Cognitive: Students choosing to seek out additional information

2.0   CHAPTER

2.1   METHODOLGY

2.1.1   Statement of the Problem

The critical question is what processes of engagement do students have related to their career objectives when they enter vocational programs, considering the unique, individualized and independent learning environment associated with vocational education?

2.1.2   Research Questions

1. What assessment strategies can be used to determine the vocational students' level of engagement when transferring from academic to vocational programs?

2. How may identifying the incoming vocational students' level of engagement assist them with realistic career objectives?

3. Depending on the students' processes of engagement when entering vocational schools, how may vocational education promote their career objectives and preparations for their careers?

4. What methods of assessment of vocational students' levels of engagement may be replicated in vocational programs to assure that students are adequately prepared for careers and postsecondary continuing education?

2.1.3   Principal Investigator and Associates to The Study

The study was conducted by one researcher, the Principal Investigator. The Principal Investigator was also the study group students' vocational Health Assistant teacher in the school. The Principal Investigator was also employed as a vocational teacher when the vocational teachers were interviewed for the study.   The Principal Investigator obtained, recorded and analyzed the data. The data was formatted into tables by a peer vocational teacher. The data was coded for the purpose of confidentiality.   The study was reviewed by two other colleagues in secondary vocational education.

2.1.3.1 Population Sampling

Data on student engagement was obtained from two sample groups; the vocational teachers and the Health Assistant vocational students. The population sampling was obtained by 'convenience sampling' (Auerbach & Silverstien, 2003, p. 18). The sample group of students identified to participate in the study included 17 Health Assistant students entering the program for the 2004-05 school year. This was the students' first exposure to vocational education. The group included 13 sophomores and 4 juniors. There ages ranged from 14 to 17 years old. There were 16 females and one male student. Eight students' family incomes qualified them for 'free or reduced' lunches. Two students became pregnant during the school year. One student did not complete work-based learning because of her delivery. The other student delivered after the school year ended.   Eleven students completed the three student interviews and the work-based learning experiences. The following were the reasons the students did not complete the study: a) their families relocated out of the school districts; b) the students returned to their home schools

because of suspensions or placements; or c) the students were absent from school when the final student interviews occurred.

Quantitative student data included the students' family histories, grades, discipline referrals, and absenteeism reports which were obtained from their permanent records. In Table 2.1 the students' Quality Point Averages (QPAs) for the year preceding their admission to the school indicated a wide range of academics grades. Included in the graph were the students' math and science grades. Eight of the students were classified as educationally disadvantaged with less than 2.00 QPA's. Three students entered with QPAs greater than 3.00. Four of the students received learning support and had individual educational plans (IEPs). Two of the students who received learning support were also classified as educationally mentally retarded (EMR). Two students in the study group were required to attend summer school prior to their admission in order to meet the academic requirements of the vocational school.

The demographic issues identified as important about the students' backgrounds included their grade, family structure, economic background (determined by free/reduced lunch qualification), and absenteeism are provided in Table 2.1. Student absenteeism for the previous year of school was used in the study.

Table 2-1 Student Sample Population Demographics

	Grade	Free or Reduced Lunch	Two Parent Home	Prior year GPA	Absences Excused	Absences Unexcused	Previous Math Grade	Previous Science Grade	IEP
Betty	10	no		3.57	20	0	C/B	B/B	
Jackie	10	yes		1.57	36	0	NCA	B/C	yes
Meridith	10	yes	step	2.22	6	6	C	B	
Patty	11	yes		2.28	n/a	n/a	C	C	
Andrea	11	yes	yes	0.00	77	0	F	F	
Jean	10	yes		2.14	38	0	D	C	
Natalie	10	no	yes	2.62	6.5	10	C	C	yes
Susan	11	yes		1.90	3	1	E	B	yes
Kathy	10	no		2.28	13	0	D	D	
Mathew	10	no	step	0.66	0	22	D	F	
Tara	11	no		2.05	4	0	B, D	C	
Christine	10	yes	step	2.16	26	9	B, D	C	
Annette	10	no	yes	3.20	16	3.5	B, D	B	
Casey	10	yes		1.48	10	15.5	D	B	
Katherin	11	no	yes	3.40	12	3	B, D	B	
Marilyn	10	yes		3.14	13	0	D	B	
Laura	10	no		2.28	0	22	C	C	yes

Free meals: Family of Four $26,000
Reduced meals: Family of Four $37,000
(for 7/1/06-7/1/07)

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Four students, who entered the program after the school year began, were interviewed later in the first semester of the study. Two students provided only one interview because of their late admissions or unavailability to be interviewed later in the study. Eleven students completed the study.   The high attrition in the study group population occurred when two students relocating with their families; two students returning to home schools; and two students were not in attendance the last days of school to complete Student Interview 3.   The information for students who did not complete the study (participate in three interviews and the work-based experiences) was incorporated and presented in the data for the section(s) they participated in. The decision was made to include their data to provide for as many 'voices' of the students as possible.

An additional consideration in the early analysis of Student Interview 1 was the decision to classify the students in the study as 'at-risk' based on the review of their permanent records. The 'at-risk' classification provided a framework of reference for the students in the sample population.   The guidelines established by the Wisconsin Department of Public Instruction's

criteria for 'at-risk' placement of students (Table 2.2) were used to determine the number of 'at-risk' students in the sample population. (Naylor, 1989, p. 1) These guidelines, as shown below, appeared to include the numerous social and educational issues which students may face. Factors used in the Wisconsin Department of Public Instruction's definition of the term "at-risk" or in serious jeopardy of dropping out.

1. Three or more credits behind their age/grade level in credits earned toward Graduation (in grades 9-12)
2. Being chronically truant
3. Being a school age parent
4. Having a history of personal and/or family drug and alcohol abuse
5. Having parents with low expectations for their child's success or who place little value on education
6. Being a victim of physical, sexual, or emotional abuse
7. Experiencing a family trauma (such as death or divorce)
8. Being economically, culturally, or educationally disadvantaged
9. Coming from a family with a history of dropouts
10. Low intelligence scores
11. Low self-concept and social maturity
12. Feelings of alienation
13. Certain types of handicaps and limiting conditions (Tindall, 1988 as cited in Naylor, 1989).

A review of the permanent records of the students in the sample population indicated that every student in the sample population would be considered 'at-risk' based on the preceding criteria.

Twelve vocational teachers participated in the study. The teachers were categorized as new teachers (less than five years of experience) and old teachers (more than five years of experience). The teachers' educational backgrounds ranged from Vocational I Certifications (Intern teaching certificate) to Master's Degrees in education. The teachers had previous vocational experience in the private sector related to their area of certification. Six teachers had previous teaching positions, but none had prior secondary vocational teaching experience. The teacher participants' ages ranged from 36 to 69 years old. Four female and 8 male teachers participated in the study. Quantitative information about the vocational instructors was obtained

during the interviews. No reviews of the teachers' records or anecdotal records about the teachers were included in the methodology.

Many of the teachers indicated in their interviews that they had been educated and worked exclusively in the Western Pennsylvania area. Most of the teachers received their Vocational I and II Teaching Certifications through Vocational Personnel Preparation programs. The vocational personnel preparations programs were developed to enable professionals from diverse employment areas to obtain their teaching certification during their first years of teaching in a vocational school. Therefore, the new teachers had little or no experience teaching students prior to their current teaching position at the vocational school. The Data Processing, Marketing Education, and Medical Office teachers were certified in their areas with Instructional I and II Certifications. Three of the teachers obtained Bachelor degrees in areas unrelated to education prior to entering the vocational teacher preparation program. Four of the vocational teachers held advanced degrees; two with Masters in Education; one with a Master's Equivalency; one teacher held a Secondary Guidance Certification.

The demographic view of the teachers in the sample population is provided in Table 2.2. The information was provided by the teachers and was not cross-referenced with the teachers' school records.

Table 2-2 Demographic View of the Teachers in the Sample Population

Teachers in the Sample Population					
Mr/Ms	*Last Name*	*Age Range*	*Years Teaching Experience*	*Certification*	*Education*
Ms.	Jones	40-50	17	Voc II	BS
Mr.	Brown	30-40	1	Voc Intern	2 yr College
Mr.	King	50-60	1	Voc I	BS
Ms.	Smith	40-50	2	Inst I	BA+
Mr.	Douglas	60-70	6	Voc I	
Ms.	Lamb	30-40	1	Inst I	BA+
Mr.	Jackson	40-50	6	Voc II	2 yr College
Ms.	Andrew	50-60	32	Voc II	BA+
Mr.	Edwards	50-60	1	Voc Intern	
Mr.	George	50-60	9	Voc II	
Mr.	Arnold	50-60	19	Voc II	MA
Mr.	Paul	40-60	18	Voc II	MA

2.1.3.2 Mixed-Methods: Overview

A case study, mixed-methods approached was determined the most suitable methodology. Qualitative and quantitative data was obtained from the sample population. The rationale for the methodology was Greene's (2001) concepts of mixed methods of research analysis. Greene (2001) identified how multiple sources of perspectives provided the researcher with diverse views of knowledge that completed the whole view (p. 251). However, the author also addressed the challenge to the researcher in 'weaving' together 'threads of understanding' that results from mix-method inquiry. She believed that the 'tensions and points' elicited by mix-method inquiry offered better understanding of the research questions (p. 251). Greene believed that the 'triangulation' of mixed methods provides increased validity by "using different methods to measure the same constructs or phenomena" (Green, 2001, p. 253).

The research design used followed the 'coordinated design' outlined by Green (2001) which brought together "data or learnings from different methods that even as they are joined in harmony, still retain their individual methods, separate identities" (p. 255). The research was also designed to utilized distinct methods of investigation and the analysis of the findings. Green (2001) identified this as a coordinated or cooperative mixed-method design (p. 255). The use of the two design methods, 'coordinated design' and 'distinct methods of investigation' enabled the results to remain independent when necessary, but allowed for as much triangulation and synthesis of the data as possible. The paradigm of research included concepts from critical theorists and constructivists who believed that reality was in the eye of the beholder.

Triangulation of the data provided greater validity through corroboration of the participants' words with quantitative sources. Triangulation of the data enabled areas of confliction between the participants' statements and quantitative resources to be identified. Synthesis and integration of the triangulated data produced parallel or conflicting concepts in the analysis. The mixed methods approach in the research study included data analyses and triangulation from the following sources:

1. Teacher interviews
2. Student interviews
3. Student permanent records and school information
4. Student anecdotal notes (Observations and notes of the students made by the Primary Investigator)

The case study method included teacher and student interviews, observations of the students in their learning environment, reviews of the students' records, and the subsequent triangulation of the data. The research questions developed for the study encouraged responses from the participants' perspectives in their school or 'natural' setting. The students' quantitative data included the students' permanent records and school information. The students' qualitative

data included interviews, observations, and periodical anecdotal notes which were all completed by the Primary Investigator. The teachers were also interviewed by the Primary Investigator to obtain qualitative data**.** The only quantitative data obtained for the teachers was information about their ages, years of teaching experience, and levels of education.

The participants' interviews were assigned a quantitative value for the purposes of analyses. The quantitative value was determined with the placement of the participants' responses to questions on predetermined matrixes. The quantitative data which was developed from the participants' responses in their interviews were analyzed separately. The data from the analyses of the participants' interviews and the students' permanent records and anecdotal notes was triangulated and synthesized.

In the analyses of the students' interviews the highest value on the matrixes was assigned to examples of student-initiated, or active engagement. As noted in the research, student initiated engagement was considered a stronger method of learning and provided better evidence of student interest and motivation.

Another qualitative method of analyses of the interviews was the identification of 'common threads' of words, content, or phrases that were repeated throughout each of the three sets of student interviews, or repeated throughout the teachers' one set of interviews. The common threads were also considered quantitatively. For example, the common threads were tabulated at the end of each student interview. The numeric value of the common threads was compared between the three interviews of the students and between the interviews of the teachers and the students.

As noted earlier, the mixed-methods design in this study also included the triangulation of the students' interviews, students' permanent records, students' anecdotal notes, teachers'

interviews, and previously obtained research data. The goal of the triangulation was to merge and tease apart the diverse data with the goals of clearer and fairer analyses of the data. An assumption of the triangulation of the data was that it would support consistency and meanings between the sources of the data or identify areas of confliction. For example, the students' absentee records and grades from the previous school year were compared with the students' current school year disciplinary records, grade reports and family background information. The information from these sources was analyzed to ascertain whether the students had improved their absenteeism, their grades, their interpersonal relationships with teachers and students and their family situations. The analyses of the previous information were compared to the information obtained from the students' interviews. The comparisons identified between the data from the qualitative interviews and the quantitative student information was used to provide validity for the students' interview information and address the possible researcher bias that may have occurred in the analysis of the interviews. The assumption about the triangulation of the data was more correct than incorrect. There appeared many areas of conflict in the data that led to further questions to be considered in the study or in future research. The triangulation of the data also appeared to facilitate the emergence of 'themes' in the study. The 'themes' were ideas or concepts of common threads pertinent to student engagement that developed from different parts or aspects of the study which were merged in the analyses. The 'emergence' of themes was noted throughout the analyses. The themes were used with other aspects of the analyses to address the research questions.

The teachers' interviews were analyzed with a similar mixed-methods approach. The data from the teachers' interviews was analyzed qualitatively for context and then given quantitative values when applied to matrixes about student engagement. The teachers' answers to

questions were also tabulated quantitatively for comparison. In the analysis of the teachers'
responses, the highest value on the matrixes was assigned to examples of student-initiated, or
active engagement provided by the teachers. The quantitative data about the teachers such as
years of teaching experience and levels of education were identified for comparison purposes.
Questions arose from the comparisons of the teachers' years of experience and levels of
education. For example, were there remarkable differences in the data obtained from
experienced versus new teachers? The teachers' interviews were also analyzed for common
threads that occurred in their interviews and in the students' interviews. As noted earlier, no
anecdotal notes were kept about the teachers or other information obtained beyond what they
brought forth in their interviews. The teachers' interview data was also a source of triangulation
for the students' interview data. The teachers' interview data was a point of reliability for the
students' interview data.

The data from the Teacher Interview and Student Interview 1, Student Interview 2, and
Student Interview 3 were analyzed for content as previously described. However, in order for
long interview responses to be applied to a matrix other methods of analyses were used. First,
the participants' responses in the interviews were viewed from the questions that were asked.
The interview data was then 'restructured' using the concepts Kvale (1996) identified as
"meaning interpretation", "narrative restructuring" and "meaning catagorization" (pp. 192-193).
Using 'meaning interpretation', the participants' responses were amended or compressed into
forms that could be applied to a matrix of student engagement ((Kvlae, 1996, p. 162). 'Meaning
interpretation' was also used to value the participants' responses for the levels of student
engagement. For example, as previously mentioned, in the Teacher Interviews, student-

motivated engagement was valued high (4) and non-student motivated engagement or no engagement was valued at (1).

In all of the interviews 'meaning categorization' was used to develop the sub-categories of information from the participants which were obtained from direct responses to prepared questions. 'Meaning condensation' and some 'narrative restructuring' were used to identify 'common threads' of information from the subcategories that developed. Common threads also developed from other the quantitative data sources of the students and teachers. The 'common threads' of data were observed across interviews of the teachers and students. For example, the positive quality of the 'explanatory style' of teaching found in teachers whom the students stated they liked emerged in many interviews of the teachers and students. The strongest 'common threads', by virtue of their repetition throughout the analyses of all of the data were used to identify the emerged 'themes' in the study. Green (2001) identified the use of multiple sources of perspectives to provide the researcher with diverse views of knowledge that complete the whole view (p.251). However, the author also addressed the challenge in 'weaving together' 'threads of understanding' that results from mixed-method inquiry. She believed that the 'tensions and points' elicited by mix-method inquiry may offer better understanding of the research question (p. 251). The author also believed that the 'triangulation' of mixed methods provides increased validity by "using different methods to measure the same constructs or phenomena" (Green, 2001, p. 253).

Stories also developed about the individual teachers and students and as groups of vocational teachers and learners. The stories were presented in the case-study method of providing the participants' words whenever it appeared that it was the most valid method of providing the data. The themes presented as 'meaning interpretation' was an attempt to provide

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"more or less speculative interpretation" (Kvale, 1996, p. 193) about the interview data and included the application of the researcher's years of teaching experience to the data analysis and interpretation.

In summary, the goal of a mixed-methods approach to the analyses was to enable the Primary Investigator to consider qualitative data from teachers' and students' interviews and anecdotal notes and quantitative data from the application of information to matrixes and the student permanent records or research data from other sources. It was planned that the use of either or both of the qualitative analyses of the interviews or quantitative analyses of the interviews would provide the most accurate description of what occurred in the research. The assumption was that a mixed-methods approach would also decreased the likelihood of bias that could occur from utilizing only interviews to collect data, or only matrixes to analyze the data. The interviews appeared to offer rich content of information about student engagement. However, the information about student engagement provided by the teachers and the students was considered subjective information if it was presented only verbatim. Therefore, the use of matrixes, the identification of common threads, and the use of the students' permanent records allowed for some cross comparison of the data between the study group participants. The cross comparisons eventually provided support and also brought out the lack of consistency to some comments made by the students and the teachers. In summary, the previously identified mixed methods used in the study appeared to address some of the bias that was especially associated with interviews as a method of research.

2.1.3.3 Interview methods

The interview methods for the study incorporated concepts from Kvale (1996) and Patton (1990). Kvale (1996) provided practical guidelines for conducting research interviews. The

author identified the importance of incorporating the participants' descriptions of "their lived world and for the subjects to "discover new relationships during the interview, see meanings in what they experience and do" (Kvale, 1996, pp.189-190). Kvale (1996) encouraged the researcher to actively participate in the interview by condensing and interpreting the meanings of the participants' responses (Kvale, 1990, p. 189).

Patton (1990) identified the goal of interviews was to obtain the participants' thoughts about the issue as well as the participants' "perceived changes in themselves as a result of their involvement in the program" (p. 279). A "standardized open-ended interview" approach was used for the first interviews of the teachers and the students (Patton 1990, p. 281). The participants were asked the same questions in the same sequence as much as possible. This interview method minimized 'legitimacy' and 'credibility' issues because the same information from each participant (Patton, 1990, p. 286). Another interview method, the 'general interview guide' (Patton, 1990, p.280) was also used to encourage the participants' to respond without relying solely on standardized questions. This method also enabled the Primary Investigator to "adapt the wording and sequence of questions to specific respondents in the context of the actual interview" (Patton, 1990, p. 280). Researcher bias was a very important consideration in this study because the Primary Investigator had prior professional relationships with all of the teachers, some for more than 15 years. The Primary Investigator was also the students' Health Assistant instructor. During the study it was important for the Primary Investigator to simultaneously develop student-teacher relationships with the student participants.

The synthesis of the two methods, 'standardized open-ended interview' and 'general interview guide' appeared to enable the interviews to flow between focus on the specific interview questions with latitude for the participants to elaborate whenever they wished. The

synthesis of the two interview methods enabled the interviews to flow between the structure necessary to keep the interview focused on the topics of discussion and yet have flexibility in the interviews as they progressed. The combined interview techniques were also selected to address the natural reticence adolescents may have to speaking with strangers. For example, in the first interview, the students initially appeared comfortable with pre-selected questions to respond to. However, as the interviews progressed, the students were observed elaborating about issues in the three student interviews. A similar interviewing approach was used with the teacher participants by asking them prepared questions and then encouraging their elaborations.

The teachers were interviewed before the students. It was hoped that the teachers might identify other aspects of student engagement not noted in the literature review. The teachers were also more likely to substantiate factors in the literature review about student engagement. The teachers' interviews were not analyzed until after the students' interviews were completed. Some information from the teachers' interviews was used to shape questions in the students' interviews.

The teachers were interviewed in the spring semester of the preceding school year. The students were interviewed in the following school three times: (a) when they first entered the school; (b) during the middle of the school year; and (c) after they completed their work-based learning experiences. The collected data was not cross-reference between the two sample populations prior to the final data analyses. However, as previously mentioned, concepts about student engagement discussed with the teachers were included in the interviews with the students. The second and third students' interviews were shaped by the information obtained in the first teachers' and students' interviews. Therefore, although 'convergent interviewing' was not used in the initial interviews of the vocational instructors and students, some of the

methodology found in 'convergent interviewing' was used to make the interviews an 'action research' study (Session 8: Convergent interviewing, 2006, p. 7).   Concepts identified in the initial interviews were used to modify the future interviews. The questions developed from this technique either clarified or challenged the information previously obtained (Session 8: Convergent interviewing, 2006, pp 7-8.). An example of this process was in the identification of 'Attention to work' as an important concept for student engagement for the development of the scenario and questions in the first student interview. The concept of 'Attention to work' was then followed in the second student interview with the question "How do you like the program now?" and other questions which focused on the students' attention to their school work.

2.1.3.4 Student Interviews: Descriptions

The students participated in three interviews. The interviews were audio taped and transcribe verbatim. 'Student Interview 1' occurred during the first semester of school, but as close to the beginning of the school year as possible. The goal was to interview the students during the 'transition phase' between their 'home' school and the new vocational school. 'Student Interview 2' occurred prior to the students attending work-based learning or 'clinical' experiences in health care settings. 'Student Interview 3' occurred during the last days of work-based learning or immediately afterward. The students' levels of engagement were assessed individually and as a group for the each of the interviews. The three interviews were then analyzed to identify linkages or inconsistencies in the students' levels of engagement throughout the school year. Work-based learning experiences were given closer attention in Student Interview 2 and Student Interview 3 to determine if the students' anticipation and participation in work-based experiences had an effect on their engagement.

The five qualities of engagement, found in the research were used to develop the 'scenario' questions for Student Interview 1. The five qualities of student engagement found in the research are as follows:

Five 'qualities' of student engagement noted in the research

1. Attention to work:

*National Academic Press (2003)
Engaging schools: Executive Summary
Challenging and demanding learning goals
*Southwest Educational Development Laboratory (2004)
Level 1: attention to work
*Initiatives: School engagement (2004)
Behavioral: (work, concentration)

2. Initiative-taking behavior

*National Academic Press (2003)
Engaging schools: Executive Summary
Pleasure in their learning
Opportunities to experience a sense of competence and accomplishment in their learning.

* Southwest Educational Development Laboratory (2004)
Level 2: students more than passive responders, take
Initiative to ask questions, and interact with teacher and others
Level 3: initiative-taking behaviors-seeking out help when
Difficulties encountered

*Initiatives: School engagement (2004)
Cognitive: seeking out additional information
Affective: persistence

3. Sense of connected-
ness of students'
prior experiences with
curriculum

*Student engagement in learning and school life: (1999)
Executive summary
Connect students' previous experiences with the curriculum

*National Academic Press (2003)
Engaging schools: Executive Summary
Information and skills students being asked to learn are important and meaningful for them and with the effort

*Fletcher (2003) Meaningful student involvement
Students as evaluators so they may provide purposeful assessment that affect their entire learning experience

4. Positive interpersonal skills	*McMahon & Portelli (2004) *Between students and teachers there is interpersonal, 'shared space'* *Cook-Sather (2002) Authorizing student perspectives *Teachers assure students have full forum of expression* *Southwest Educational Development Laboratory (2004) *Level 2: Students more than passive responders-take Initiative to ask questions and interact with teacher and Others Level 4: Student participation in student governance* *Initiatives: School engagement (2004) *Affective: deal with anxiety constructively* *Student engagement in learning and school life: (1999) Executive summary *Students establish relationships, make commitments*
5. Self-evaluation skills	*Fletcher (2003) Meaningful student involvement *Students as evaluators; they provide assessments that affects their entire learning experience* *National Academic Press (2003) Engaging schools: Executive Summary *Students can reasonably expect to be able to learn the material* *Initiatives: School engagement (2004) *Cognitive: students choosing to seek out additional information*

The behavioral definitions of the five qualities of student engagement the Primary Investigator

used to identify in the students' answers in the interviews are as follows:

Attention to work:	Students paid close attention to the details of the learning environment and teacher. Students indicated that they could concentrate easily. Students identified behavioral issues that might compromise their ability to learn.
Initiative-taking behaviors:	Students were usually able to finish projects they started. Students sought out teachers and others for help with work.

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	Students described themselves as persistent when the work was difficult to complete.
Sense of connectedness of students' prior experiences with the curriculum:	Students connected the new vocational curriculum to their previous life experiences.
	Students saw the vocational curriculum as more interesting to them than previous academic school learning.
	Students were willing to assume role of planners and evaluators of their learning.
Positive Interpersonal skills:	Students describe positive relationships with their teachers and peers.
	Students described a 'shared space' relationship with their teachers. Students believed they had a 'voice' with the teachers.
	Students were actively involved in planning their education, not passive responders but took initiative to ask questions and interact with teacher and others.
	Students identified how positive relationships with teachers facilitated their learning.
	Students dealt with anxiety and other behavioral issues positively in the classroom.
Self evaluation Skills:	Students' reflected realistically about their levels of interest and of interest and motivation towards learning and particularly towards vocational education.
	Students identified their responses to hard/boring assignments its effect on their learning.
	Students sought out additional information when necessary to complete their learning.

'Scenarios' about issues that occur in the vocational classroom provided the students with an opportunity to reflect on their actions as participants. The scenarios used in Student Interview 1 are as follows:

2.1.3.5 Student interview scenarios and questions to consider

Interview questions (based on five attributes most identified in engaged students by researchers: attention to work, initiative-taking behaviors, sense of connectedness of student with prior curriculum, positive interpersonal skills, and self-evaluation skills.

1.   Attention to work:
        Scenario: The teacher has given put the day's activities on the board for the students to complete. They include written assignments and also lab work. The teacher is reviewing the assignments and responsibilities in the lab. What do you do?

Questions to look at in the discussion:
Do you feel that you pay much attention to the details of an assignment? Is it easy for you to concentrate or do you find your mind wandering easily?

2.   Initiative-taking behaviors:
        Scenario: The class is almost over, but you find yourself a bit behind in the written assignments because you had to spend additional time completing a lab. Your lab work is not complete either, what would you do to complete both assignments if you were allowed to continue one or the other the next day?

Questions to look at in the discussion:
Do you enjoy accomplishing or finishing a project? What types of classroom activities encourage you to seek out extra help? Do you describe yourself as someone who is persistent even when the work seems hard?

3.   Sense of connectedness of students' prior experiences with curriculum:
        Scenario: The instructor is discussing a topic that you have much personal experience with and can provide your peers with an interesting story about it. What would you do?

Questions to look at in the discussion:
Is there a reason, or personal experience, that had an effect on why you choose to come to a vocational school? Do you believe that your choice of vocational education would make your high school learning more interesting and relevant than your academic home school? Do you see yourself directly planning your own instruction in a vocational program compared to a regular academic program?

4.   Positive interpersonal skills:
        Scenario: The other students are complaining about Mrs. Jones, the science teacher. She is considered very hard and doesn't answer the students' questions in class. What would you do if you were her student?

Questions to look at in the discussion:
How would you describe your relationship with previous teachers? With your peers? Did teachers assist you with your questions and work frequently? Did teachers ask you for your input into the classroom learning? Do relationships with teachers affect how much work you do for a course?

5.   Self-evaluation skills:
       Scenario: The teacher has announced a 'student' day. The students are able to decide the lessons and activities for the day. Some students want to 'just chill' but that makes for a long day. What could other students do to promote activities without seeming like a nerd or bore to the 'just chill' students?

Questions to look at in the discussion:
Do students have a good perspective on what makes school interesting and learning important? If the material is too hard to complete does this make you turn off to the assignments or do you try to ask for help?

The 'third person' questions were less intense for adolescents to respond to, yet still encouraged a personal dialogue between the researcher and the students. The five qualities of engagement, previously mentioned, were also used to develop the questions for Student Interview 2 and Student Interview 3.

'Yes' and 'no' questions used on a limited basis in all of the interviews, but primarily in the student interviews. The 'yes' and 'no' questions often enabled the adolescents to grasp the context of the interview questions more easily than 'intuitive' questions. The 'yes' and 'no' questions appeared to facilitate dialogue rather than hinder. The students answered a question 'yes' or 'no' and then they often elaborated with more information. The two students classified as EMR (educationally mentally retarded) seemed less capable of elaboration in their interviews.

2.1.4 Student Interviews: Procedures

The students' interviews were analyzed separately in chronological order. These data from the interviews was placed in sections. The sections included the findings, comparisons of the students in the group, common threads, and emerging themes. In Student Interview 1 a 'subcategories' section of information was also identified. The data from the three student interviews was cross analyzed to identify further common threads and the emergence of themes. The method of analysis of the students' interviews led to the data being generated and

systemically built (Mertens, 2005, p. 420) between the interviews. As often as possible the students' own words were included in the analysis. Verbatim quotes in the analysis were used to address researcher bias about the interpretation of the interviews. The inclusion of the verbatim quotes provided a clearer window for the reader into the students' perceptions.

The following steps were used to analyze the student interviews:

1. The students were asked pre-selected questions for their interviews. (The preselected questions are outlined prior to the analysis of each interview) The interviews were designed to include open-ended questions to encourage elaborations from the participants'.

2. The students' interviews were tape recorded and transcribed verbatim.

3. The students' responses were analyzed in the following manner:

    A. The students' responses pertaining to student engagement were placed on matrixes and scored for content on the levels of student engagement noted in the students' responses to the questions. Student engagement that was student-initiated, or active engagement received the highest value (4) in the matrixes. Student engagement observed to be was passive on the students' parts to nonexistent received the lowest scores (1). Student engagement observed to be not passive, nor totally active student engagement was scored in the mid range (2) or (3).

    B. The data obtained from the scoring methods were analyzed for the individual students and triangulated with their permanent records and anecdotal notes.

    C. The data obtained from the scoring methods was cross referenced and compared between the students within the interviews

    D. The data obtained from the scoring methods for individual students was cross referenced and compared between their interviews.

    E. In Student Interview 1 'subcategories' of information from the transcriptions were identified and categorized. The identification of subcategories in Student Interview 1 was an attempt to further break down the students' responses to the questions.

    F. 'Common threads' of information were identified which occurred in the three student interviews. The 'common threads' were categorized for analysis. Examples of 'common threads' included absenteeism/tardiness, discipline/ behavior, relationships with teachers/peers, learning styles, previous grades,

reasons for leaving the home school, reasons the students chose the vocational school, and the students' vocational program placement/career goals.

G.   The common threads data from the three student interviews were triangulated when feasible between the student interviews and the quantitative data obtained from the students' permanent records and the anecdotal notes of the students. One goal in the triangulation of the common threads with other data was to determine if any the issues that arose for the students in Student Interview 1 were positively or negatively affected as the students progressed through the school year.

H.   The students' stories developed during Student Interview 1 and continued through Student Interview 2 and Student Interview 3. Every attempt was made to provide a complete picture of the students as they completed their first year in the vocational school. The students' stories were revisited in the analyses of Student Interview 2 and Student Interview 3.

I.   'Themes' surrounding student engagement, vocational education, adolescents, learning styles, teaching, and others emerged from the analysis of the data.

J.   The data analyses of the three student interviews, one teacher interview, and the related common threads and emerged themes were used to identify the limitations of the study and to develop the recommendations for future educational policy or research.

2.1.4.1 Student Interview 1

In Student Interview 1 the students were asked to respond to five scenarios. Along with the scenarios the students were asked questions about other aspects of their transitions to the vocational school. Questions included the following:

(1.)   The reasons the students chose the Health Occupations program and the vocational school?

(2)   How the students perceived themselves as learners, hat goals (career and personal) the students hoped to attain in the vocational school?

(3)   How the students viewed their previous educational experiences?

(4)   How the student perceived their interpersonal relationships with teachers and peers?

The Student Interview 1 scenarios and questions (based on five attributes most identified in engaged students by researchers: attention to work, initiative-taking behaviors, sense of connectedness

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of student with prior curriculum, positive interpersonal skills, and self-evaluation skills) were previously

identified.

The Student Interview 2 Matrix (Table 2.3) was used to indicate the qualities of student

engagement and the levels of engagement the students received for their responses. Matrixes provided a

means to assign quantitative scores to the students' responses in their interviews which had provided

qualitative data.

Table 2-3 Student Interview 1 Matrix*

Student Interview 1 Matrix						
Qualities of Student Engagement	**Numeric Ranking**	**Attention to Work**	**Initiative Taking**	**Sense of Connectedness Behaviors**	**Positive Interpersonal Skills with Prior Experiences**	**Self-evaluation Skills**
Poor or slight level of engagement	1					
Minimal level of engagement	2					
Moderate level of engagement	3					
High level of engagement	4					

*Student Interview 1 Matrix used to determine the level of student-initiated, active engagement
for the qualities of student engagement in the scenarios and questions for the students

2.1.4.2 Student Interview 2

In Student Interview 2 the students were asked seven questions about the school, the

program, and their career objectives. In Student Interview 2 the students had opportunities to

provide other information beyond the questions they were asked.

2.1.4.3 Student interview 2 questions

1. What do you think about the program now?

2. Are you looking forward to clinical? What will it be like?

3. How are your academics?

4. What's your favorite thing about the program? The school?

5. What's your least favorite thing about the program? The school?

6. What career do you have in mind?

7. Do you like your teachers? Your peers?

8. Additional Comments

The Student Interview 2 Matrix (Table 2.4) was used to indicate the qualities of student engagement and the levels of engagement the students received for their responses.

Table 2-4 Student Interview 2 Matrix*

Student Interview 2 Matrix								
Questions	Numeric Ranking	What do you think of the program now?	Are you looking forward to clinical? What will it be like?	How are your academics?	What's your favorite thing about the program? The school?	What 's your least favorite thing about the program? The school?	What career do you have in mind?	Do you like your peers? Your teachers?
Poor or slight level of engagement	1							
Minimal level of engagement	2							
Moderate level of engagement	3							
High level of engagement	4							

*Student Interview 2 Matrix used to determine the level of student-initiated, active engagement for the qualities of student engagement in the scenarios and questions for the students.

2.1.4.4 Student Interview 3

In Student Interview 3 the students were asked six questions similar to the questions in Student Interview 2. The students were asked about their impressions of their clinical experiences (work-based learning) and their recommendations for new students' vocational education. (Author's note: A student could express a negative response about being involved in work-based learning and still receive a higher score if the reason the student gave was considered initiated by them and provided engagement in their learning.)

2.1.4.5 Student Interview 3 Questions

1. Students were asked 6 questions about the school, the program, their career objectives, their academics, and their teachers and peers.

2. What is your response to clinical now? What is your favorite thing? What is your least favorite thing?

3. How do you feel about the program now? What is your favorite thing? What is your least favorite thing?

4. How do you feel about the school now? What is your favorite thing? What is your least favorite thing?

5. How are your academics now?

6. How are your relationships with your teacher? Your peers?

7. What recommendations do you have for new students considering the school and the program?

The Student Interview 3 Matrix (Figure 7) was used to indicate the qualities of student engagement and the levels of engagement the students received for their responses.

Table 2-5 Student Interview 3 Matrix*

Student Interview 3 Matrix						
Questions	Numeric Ranking	Response to program Favorite/Least Favorite	Response to vocational school Favorite/Least Favorite	Response to academics Favorite/Least Favorite	Response to teachers Favorite/Least Favorite	Recommendations to incoming students
Poor or slight level of engagement	1					
Minimal level of engagement	2					
Moderate level of engagement	3					
High level of engagement	4					

* Student Interview 3 Matrix used to determine the level of student-initiated, active engagement for the qualities of student engagement in the scenarios and questions for the students

2.1.5   Teacher Interviews

The vocational teachers were interviewed once prior to the student interviews. The interviews occurred during the 2004-5 school year. They were completed before the student interviews. The teachers had no prior knowledge about the interview questions. The teachers were informed that the study was about "student engagement". Most of the teachers' interviews occurred during their breaks of after school hours. The teachers appeared interested answering the questions and they often elaborated.

The matrix developed had four values of student engagement. Student engagement was considered very high if it was 'student initiated'. Student engagement was considered lower or not measurable the more it was 'teacher initiated' or not present in the students' responses. This method of analyzing the teachers' interviews adapted well to the 'five qualities of engagement' from which student initiated engagement was considered more positively in the research. The teachers' interviews analysis included many direct quotations similar to the students' interview analysis. The rationale was to reduce researcher bias, since the Principal Investigator worked with the teachers. Also, the quotes provided the reader with a window into the teachers' perspectives.

2.1.5.1 Teacher Interview Questions

Teachers were asked nine questions about the students, vocational education and student engagement.

1. What does the term 'student engagement' mean to you as a teacher?

2. Do the students choosing a vocational career appear to be engaged in their learning?

3. How is student engagement affected by the types of students entering vocational programs?

4. Are there particular expressions that you have heard from the students entering a vocational program for the first time?

5. What strategies do you use to engage or promote the students in your curriculum?

6. Do you believe that the vocational curricula promote or detract from student engagement?

7. What specific qualities in the students' environments promote student learning in vocational programs, for example the teacher, the competency-based education, individualized instruction, hands-on learning, etc.?

8. What do you think students say when they first enter a vocational program?

9. Do you want to add anything?

The Teacher Interview Matrix (Figure 2.6) was used to indicate the levels of student engagement and the numeric ranking the teachers received for their responses.

Table 2-6 Teacher Interview Matrix*

Teacher Interview Matrix							
Level of Engagement	Numeric Ranking	What term student engagement means?	Do students appear to be engaged?	How is engagement affected by the types of student entering?	Particular expressions of students entering?	Teaching Strategies	Does vocational curricula promote or detract?
Engagement not enhanced or negatively affected - Teacher initiated.	1						
Engagement minimally affected - Minimally student initiated.	2						
Engagement moderately affected - Somewhat student initiated.	3						
Engagement strongly affected - Mostly student initiated.	4						

*Teacher Interview Matrix used to indicate the levels of student engagement and the numeric ranking the teachers received for their responses.

2.1.5.2 Teacher Interview Procedures

1. Teacher responses were placed on a matrix of student engagement ranging from 1: student engagement not student initiated and mostly teacher initiated to 4: student engagement mostly student initiated with minimal teacher initiation.

2. Common threads that developed from the teacher responses were identified.

3. Application of teacher interviews to student engagement qualities.

2.1.6 Definition of Terms

Area Vocational Technical School (AVTS): Secondary vocational technical school supported by surrounding academic school districts. Either half-day or full day programs available.

Applied Technology: A national educational initiative to promote technical skills in the classrooms. Vocational education utilizes this funding to obtain new equipment to promote the transition of students from schools to employment.

At-risk students: Students who are academically, economically, or socio-emotionally at-risk of dropping out of school

Clinical experience: The name for 'work-based' learning in vocational health occupations programs.

Comprehensive Vocational School: Vocational school with both academic and vocational programs. Students do not return to their sending school districts for their academics.

Health Assistant Program/Health Occupations Program: Vocational program in which students may become nursing, dental, medical assistants or prepare for postsecondary medical education. Students receive introductions to allied health careers and work-based 'clinical' experiences.

Home school: Name used by vocational staff and students to denote the students' previous high school and sending district for the vocational school.

Career and Technical Education: New name for vocational technical education. The emphasis was moved from 'vocational' or rehabilitation and remediation to the 'career and technical' or preparation for employment.

Career Objective: The career goal students identify prior to their entrance into the vocational school.

Competency-based education: (CBE) Corner stone of vocational education. Students are provided with skills or information to learn individually. The students are assessed based on their attainment of predetermined levels of achievement.

Individual education plan: (IEP) Plan of education for students who receive learning support. The IEP is developed by teachers (academic, vocational, and learning support teachers), parents, school psychologists, administrators and the student.

Individualized instruction: Instruction which is developed for the individual needs of each student. Assessments of the students are also individualized.

No Child Left Behind: Educational Act which promotes accountability for educators through identification of the students' progress. Student progress is measure by state implemented achievement measures such as standardized achievement tests given at benchmarks

On-the-job training: (OTJ) Training for students at the worksite. This training is most used in vocational schools' Cooperative Education programs or externships

Pennsylvania System of School Assessment: (PSSA) Standardized test give to student in 3rd, 5th, 8th, and 11th grades in Pennsylvania. The student results are reported as advanced, proficient, basic or below basic. The assessments are in math, reading, and writing. School districts are accountable for the students' results. The PSSA results are monitored by the Pennsylvania Department of Education and affect schools' evaluations by the state.

School-To-Work: A national educational initiative similar to the Tech Prep initiative. Developed to encourage the identification of school-based, transition, and work-based skills for high school students. Considered a component of Tech Prep

Self-directed learning: Learning environment in which the student determines when and how assignments are completed. The students choose their learning priorities between lab procedures and classroom assignments.

Sending school districts: The school districts which monetarily support an area vocational technical school and send their students to the vocational programs

Student-initiated engagement: Active engagement. Engagement for the student develops and is maintained from internal motivation.

Tech Prep: A national educational initiative to promote a stronger relationship between high schools (including vocational technical schools), post-secondary institutions and employers to benefit high school students. Funded through the Perkin's Act

Work-based learning: A component of vocational education in which the students learn competencies related to their vocational program at work-sites under the supervision of the vocational teachers.

2.1.7   Limitations of the Study

The limitations of the study are outlined as follows:

1. The data obtained from the participants' interviews was qualitative. The qualitative data was subject to interpretive analysis by the researcher.

2. The study focused on a small group of vocational students in a Health Assistant program. The method of sampling the population was limited to all incoming Health Assistant vocational students and vocational teachers in the study school who wished to participate. Random selection of the population sampling could lead to some generalizations of the results.

3. The Primary Investigator or researcher was the vocational teacher for the student participants and a peer teacher with the teacher participants. During the study it was important to develop positive student-teacher relationships with the new students.   These student-teacher relationships could have caused bias results in the student interviews and in the anecdotal notes

by the Primary Investigator from student observations. However, it was observed that positive interpersonal relationships between the teacher and the students often led to more in-depth information from the students.

4. The study was longitudinal in that it occurred over a two year period. The length of the study was advantageous for obtaining data about the development of the students during a school year. However, the data was more difficult to manage because of the study's length.

5. The data analysis was completed by a novice researcher. The data was analyzed without computer assistance and subject to human error in transferring the qualitative data to quantitative data to compare the results of the interviews.

6. The methodology and data analysis did not address the research questions about student engagement as well as expected. Extraneous data which did not address the research questions was frequently obtained. The extraneous data was also analyzed and it was found to be relevant to student engagement and the students' perceptions about themselves as new students in a vocational school.

7. The student group changed during the course of the study. Students left because they moved away or were transferred to their home school or placements. New students entered during the early stages of the study.

8. The generalizability of the study was limited because of the population sampling. However, the results could be useful to educators with similar groups of students and issues.

3.0   CHAPTER

3.1   DATA ANALYSIS

3.1.1   Introduction

A case-study, mixed methods research study was designed. Interviews of the students and teachers were completed over the course of two years. The data from the participants' interviews was triangulated with the students' permanent records and anecdotal notes. The data analyses results were used to determine which student assessment strategies may enable educators to determine the students' levels of engagement when transferring from an academic school to a vocational school. Additional information was generated from the data analysis about the students and vocational education. This information was also presented in the findings.

As noted previously, many of the student participants could have been or were classified as at-risk. According to the research, at-risk students may not have had the academic or the socioeconomic background to sustain student initiated, active engagement. The construction and triangulation of the data from different sources, interviews, student permanent records, and anecdotal notes, enabled themes about student engagement to emerge or develop for students who entered a vocational school for the first time. The Primary Investigator chose to personalize the data as much as possible in the presentation of 'student engagement'.

Another concern identified in the 'limitations of the study' was that the research methodology and data analyses did not clearly address the research questions about student

engagement. However, the research methodology provided additional information about high

students who enter a vocational school for the first time and leave their friends and activities to

pursue a career or vocation. The research provided similar information about the vocational

teachers who often expressed confusion about the direction of vocational education and empathy

for their students.

3.1.2   Statement Of The Problem

The critical question is what processes of engagement do students have related to their

career objectives when entering vocational programs, considering the unique, individualized and

independent learning environment associated with vocational education?

3.1.3   Research Questions

1.   What assessment strategies can be used to determine the vocational students' level of
        engagement when transferring from academic to vocational programs?

2.   How may identifying the incoming vocational students' level of engagement assist them
        with realistic career objectives?

3.   Depending on the students' processes of engagement when entering vocational schools,
        how may vocational education promote their career objectives and preparations for their
        careers?

4.   What methods of assessment of vocational students' levels of engagement may be
        replicated in vocational programs to assure that students are adequately prepared for
        careers and postsecondary continuing education?

3.1.4   Student Interview 1: Findings

Principal Investigator's Note: (As noted earlier, to avoid loosing the students' personalities in the data analysis, a qualitative presentation of the students first year in a vocational school was accomplished through their own words whenever possible.) The students had many similarities in their backgrounds based on an examination of their permanent records. The students came to the school from eight sending school districts, yet within a narrow framework the students had much in common. For example, one student came from a middle class background, the others were from fairly poor or very poor socioeconomic backgrounds. Most of the students lived in single parent or step parent homes. The majority of the students were eligible for free/reduced lunches. The Principal Investigator took the students home after their interviews. It was observed by the Principal Investigator that many of the students lived in homes that were located in distressed areas of the county. The parents worked in blue collar or service sector jobs. None of the parents had a post-secondary technical or college education. Three of the students rode the bus every day over one and a half hours each way to attend the vocational school.

The students expressed difficulty with some aspect of 'traditional' academic high school education. The difficulties the students had pertained to their peers or difficulty interacting with teachers and authority figures. The students' academic abilities ranged from severely academically disadvantaged to performing at grade level. However, no student had performed above grade level at the time he/she entered the vocational school. The students <u>all</u> met the criteria established from the research of at-risk students.

3.1.4.1 Comparisons of students in sample group

The average score for the students' responses for the five qualities of engagement was (.69). The students' levels of engagement as exemplified in the graft (Figure 3.1) were shown to hover in the mid-range. Their positive responses to a 'Sense of connectedness' appeared to indicate that the students' perceived the vocational school as a place to connect with some part of their lives that involved health care. For some students the connection was an ill family member. Other students expressed aspirations of becoming nurses or other health care workers. The parents' jobs as health care workers played a role in the students' sense of connectedness to the vocational program.

In Figure 3.1 the students' group responses to the five qualities of engagement are shown in their first interview to the five qualities of engagement identified in the literature.
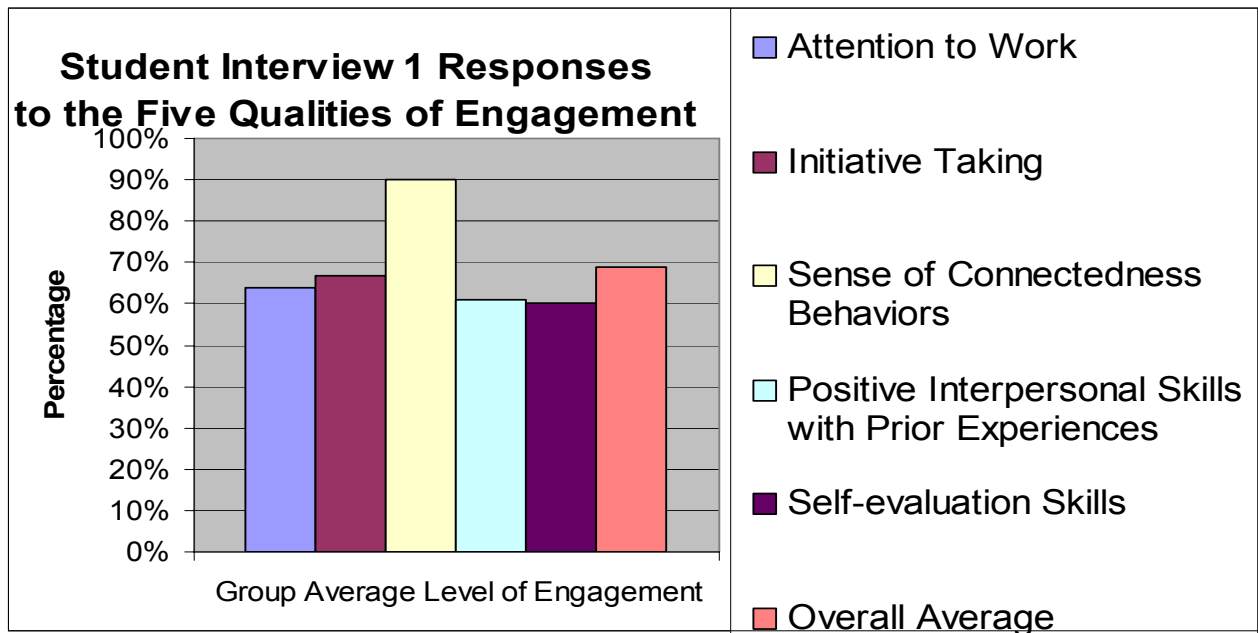
Figure 3-1 Student Interview 1 Group Responses to The Five Qualities Of Engagement

The students' responses for 'Self-evaluation skills', in which the students were asked how they perceived themselves as students in their learning environments, were lower. Except

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for two students who scored high in all of the questions about student engagement, the scores for the remainder of the students were low for self-evaluations.

In Table 3.1 the individual scores for the students' responses to the five qualities of student engagement are displayed.

Table 3-1   Individual Placement Of Students' Responses From Student Interview 1

	Grade	Attention to Work		Initiative Taking		Sense of Connectedness Behaviors		Positive Interpersonal Skills with Prior Experiences		Self-evaluation Skills		Average
Betty	10	8	1.00	9	0.75	10	0.83	5	0.42	5	0.63	0.73
Jackie	10	2	0.25	3	0.25	8	0.67	3	0.25	3	0.38	0.36
Meridith	10	8	1.00	11	0.92	12	1.00	11	0.92	8	1.00	0.97
Patty	11	5	0.63	7	0.58	11	0.92	7	0.58	2	0.25	0.59
Andrea	11	2	0.25	9	0.75	12	1.00	3	0.25	5	0.63	0.58
Jean	10	6	0.75	11	0.92	12	1.00	12	1.00	8	1.00	0.93
Natalie	10	4	0.50	7	0.58	12	1.00	8	0.67	5	0.63	0.68
Susan	11	2	0.25	5	0.42	12	1.00	8	0.67	3	0.38	0.54
Kathy	10	8	1.00	12	1.00	12	1.00	8	0.67	8	1.00	0.93
Mathew	10	3	0.38	4	0.33	12	1.00	6	0.50	5	0.63	0.57
Tara	11	8	1.00	7	0.58	12	1.00	11	0.92	5	0.63	0.83
Christine	10	8	1.00	11	0.92	12	1.00	10	0.83	7	0.88	0.93
Annette	10	6	0.75	10	0.83	8	0.67	5	0.42	3	0.38	0.61
Casey	10	4	0.50	5	0.42	8	0.67	3	0.25	5	0.63	0.49
Katherin	11	4	0.50	11	0.92	11	0.92	6	0.50	2	0.25	0.62
Marilyn	10	4	0.50	7	0.58	9	0.75	12	1.00	3	0.38	0.64
Laura	10	no data available	--	no data available	--	no data available	--	no data available	--	no data available	--	
			0.64		0.67		0.90		0.61		0.60	0.69

The following figures represent the students' scores for their responses in the subsections to the five qualities of engagement. The subsections data provided areas of confliction about how the students saw themselves as learners. The conflictions were identified and further analyzed to try and understand why they occurred.

Figure 3.2 'Attention to work' shows the students' responses to the subsections 'Attention to details' and 'Concentrates easily'. The students stated how they paid attention to their assignments but admitted they struggled with concentration on their work.
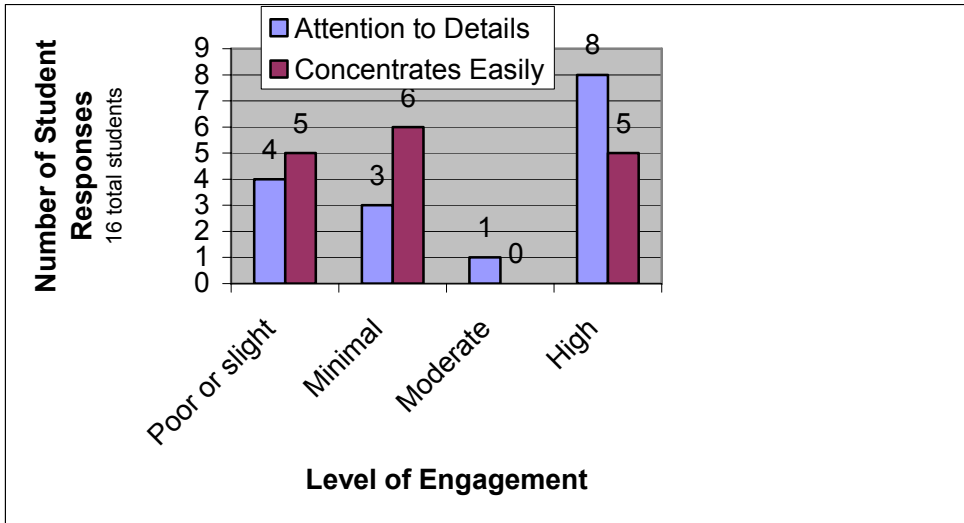
Figure 3-2 'Attention to Work' With Subsections 'Attention to Details' and 'Concentrates Easily'

In Figure 3.3 the students' responses for 'Initiative-taking behaviors' with the subsections 'Finishing project', 'Seeks out help', and 'Describes self as persistent' are shown. There was noted conflict with the students' responses to 'Finishing project' and their descriptions of themselves as persistent. It appeared that the students were interested in trying to finish their work, but they stated they often were frustrated and then they would just quit working. The students often did not seek out help for their assignments. For the students who did not seek out help they often stated they would rather complete the work on their own.

In Figure 3.4 the students' responses for their 'Sense of connectedness' are shown. Many students expressed personal reasons for attending the vocational school. However, their personal reasons were not only related to a health career. The students described the vocational school as more interesting than their academic schools for various reasons. The students were cognizant of their learning styles and how the vocational classroom would enable them to use their kinetic styles of learning with frequent hands-on activities.
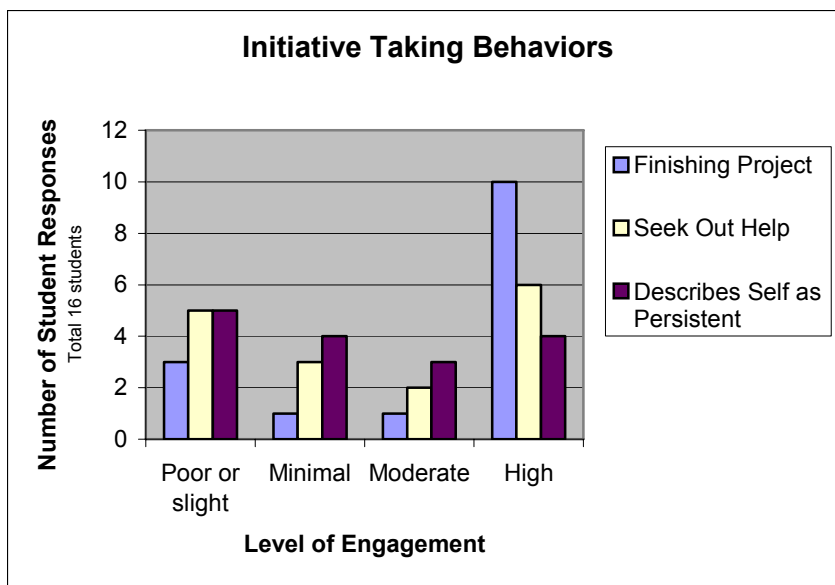
Figure 3-3 'Initiative Taking Behaviors'
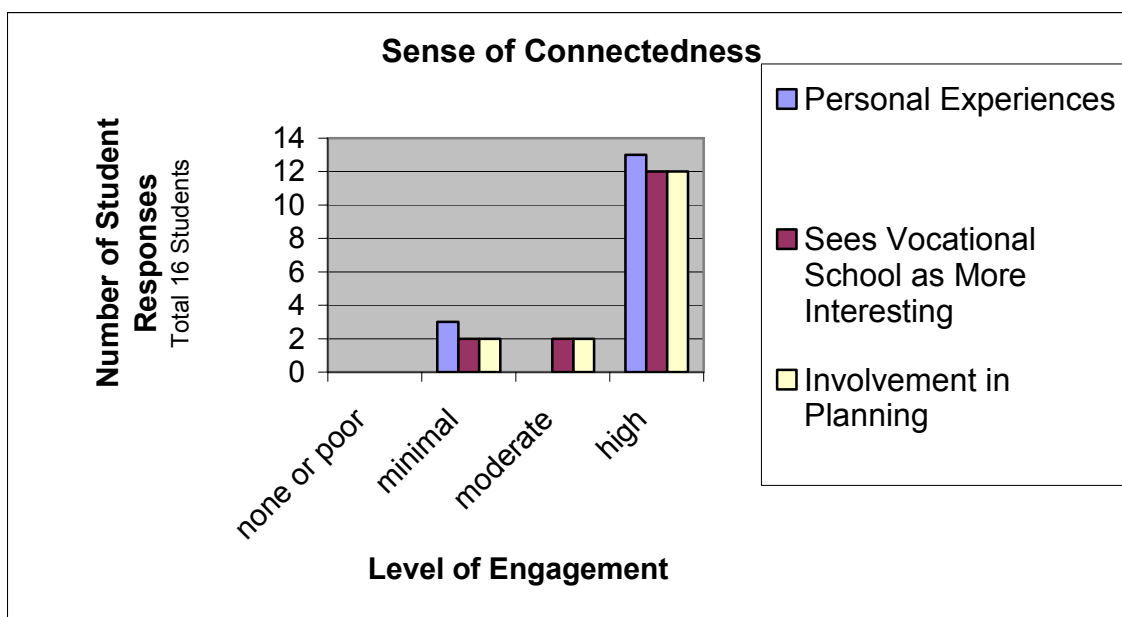
Figure 3-4 'Sense of Connectedness'

An unexpected result was the students' responses to their 'Involvement in planning' their education. The students' interests in this aspect of their learning was supported in the research in which active, student initiated engagement was closely aligned with student empowerment.

In Figure 3.5 the students' responses for 'Positive interpersonal skills are shown. The students identified that their relationships with their teachers affected their work. However, over half of the students also described poor relationships with their teachers or peers. A similar number describe that their relationships with their teachers did not affect their work. The

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students were asked to empathize with their teachers in the subsection 'Perception of teacher's relationship to the student'. Many students felt their teachers saw them more favorably which supported the students' more positive responses to 'How teacher/student relationship affects student work'.
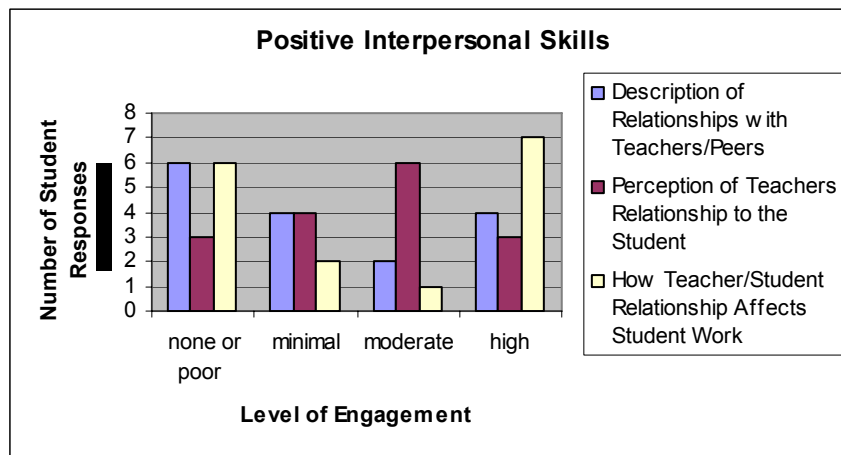
Figure 3-5 Positive Interpersonal Skills

In Figure 3.6 the students' 'Self-evaluation skills' are provided. In the research the students who were provided opportunities for self-evaluation and self-reflection were observed to be more engaged in their learning. The results to 'Student evaluation for levels of interest and motivation' reflected the students' lack of motivation in their previous grades. The results appeared to support the students' previous results in 'Initiative-taking behaviors' in which the students did not describe themselves as persistent or only moderately persistent in their work. The students' responses to work that was either hard or boring reflected their lack of persistence in the previous question.

However, the students identified that they were interested and motivated to learn in the vocational school. This response was reflected in the students' 'Involvement in planning' their educations.
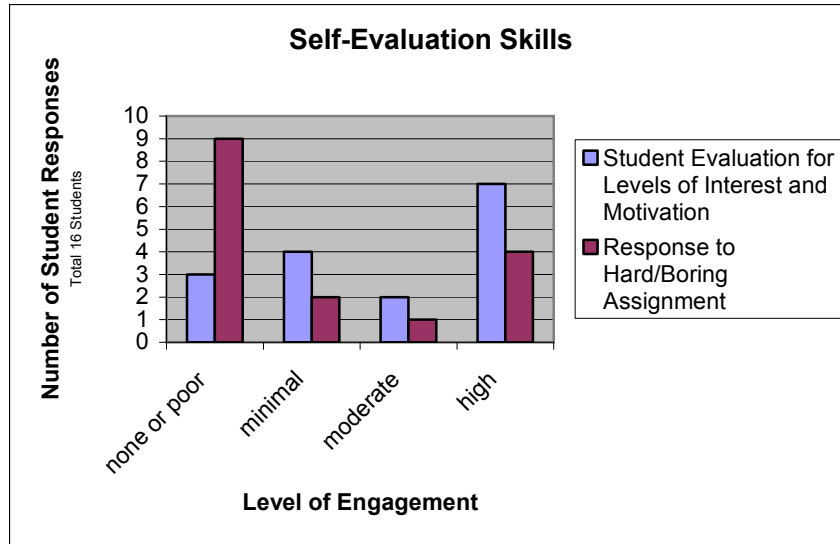
Figure 3-6 Self-Evaluation Skills

Meredith's responses were the most positive of the group for the five qualities of student engagement identified for use with the Student Interview 1 matrix. Meredith's previous academic grades were fairly low. However, she entered the vocational school with a good attendance record and expressed focused career objectives. Meredith's home was in a rural section of the county and she was eligible for reduced/free lunches. Meredith's lived with her father and step mother, Her mother lived out of state. In her interview she mentioned that she rode the bus over 1 ½ hours each way, every day to attend the vocational school. She traveled first to her home school then to the vocational school each day to attend vocational education. Meredith also walked a mile, to and from the bus stop each day. Meredith chose to come to the vocational school after her ninth grade tour of the school and the Health Assistant program. She expressed a career goal of a Medical Technician and believed that a vocational education would help her more than 'regular' classes in preparing her for "work and school" after graduation. "Well, I feel that Vo-Tech, a vocational school is like way better than high school. 'cause you get to like your classes and then you still get to learn what you're going to do…and get a job…" (Student 3/S 1, p. 4).

Meredith stated that she knew what she wanted from an education and appeared enthused about her placement in the Health Assistant program. She expressed some difficulty with previous teachers whom she stated had an "attitude" toward her and she had with them. **"I would probably tell her she needs to answer questions and I would tell her that I didn't like the fact that she ignored the students…"** (Student Interview 3/S, p. 5) Meredith was asked to describe what she felt teachers should do to help their students.

Question: **What does a teacher look like when they get an attitude, what would, I mean, I know when I was a teenager what the word meant, what's the teacher look like who has an attitude toward you? What does he or she do to demonstrate or verbalize that?**

Response: "Like if you do something wrong, like on a test or something and like they yell at you."

Question: **Raise their voices?'**

Response: "Yeah, and you feel, like that's not…(inaudible) expected of you. If you put something down that wrong…on a test or something then they should help you, not yell at you…and that's having an attitude…" (Student Interview 3/S, p. 5).

Meredith stated that she liked to sit in groups in the classroom and work with her classmates. She mentioned that only twice, once math and once science class, were the students permitted to work together in her former high school. She indicated that she liked the 'lab skills' and the ability to choose when she completes her written or skills assignments.

Meredith stated that she might not have close peer relationships in the vocational school. She indicated she had no friends when she came to the vocational school and that she thought she would have to be alone, but she believed the vocational education was worth it. Meredith also expressed positive feelings towards making new friends in the class and in the school.

Meredith indicated that she was working harder on the academic subjects which she believed would help her to achieve her goals. When she was asked what she expected when she

came to the school she stated: I expected…No one to really pay attention…or everyone to just do their own thing…but it changed…Everyone's real nice…I wasn't expecting to make any new friends." …(Student Interview 3/S, p. 2).

Meredith displayed much self-presence for a 15 year old. She provided straight-forward and simple answers to questions, good eye contact, and she paid careful attention to the interview questions. She appeared to have many of the five qualities of engagement previously identified in the research. Meredith's was placed in her 'first choice' of vocational program and she exhibited high levels of interest and motivation toward the vocational program and school.

Three students, Jean, Kathy, and Christine obtained high averages for the five qualities of student engagement considered in Student Interview 1. Jean, one of the youngest students, was fourteen at the time of her first interview. Jean entered the vocational school with a 2.14 QPA. She had a good attendance record and stated focused reasons for her decision to attend the vocational school. Jean was eligible for free/reduced lunch and lived in a single parent home. She indicated that she wanted to attend the vocational school for many years. Jean's two older siblings graduated from the vocational school. She offered some self-reflection in the following comment:

> "I do…Especially, like, everybody tells me I'm different than other teenagers.…I
> don't really act like them, so I don't really know what they'd be like. Because I
> had to grow up real fast when my dad died, so…So I'm not really like other
> teenagers at all…" (Student Interview 6/S p.5)

Jean's answer to the question about what learning meant led to her comments about her father's death. However, she further elaborated on learning when she compared her vocational school to her previous school.

> You learn there (home school), but you learn as much as you do here…Like, you
> show them how to do stuff and explain it, and them, they write it on the board,
> and say 'here you go'…Like, and then, if you ask…one person asks the teacher

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why they did that [write things on the board] and they said, 'cause you learn better that way.

Oh you did?

"I never learned better that way. I think I learn by description and visually, and stuff like that." (Student Interview 6/S p.7).

Jean's eye contact and mannerisms appeared poised for her age. Questions about the vocational school led to additional remarks about her personal life. Jean's received straight A's in her academics until sixth grade when her father died. She struggled since then, but stated that she continued to like school. She described herself as a hard worker. Her father died when she was12 from a heart attack. Jean found him. Her mother remarried within a year. Jean's stepfather was killed a few years later. She appeared noticeably flustered when she spoke about her home life, but she chose to continue the conversation. Jean indicated that her mother did not influence her or appear to care about her schooling as much as her father and stepfather had. She stated she was beginning to move away from her problems about the time she entered the vocational school. Jean admitted that she "peaked" at the unit on death and dieing in her book. Jean stated that she did not want to participate during those classroom discussions or the labs. Jean provided a clear expression of her desire to be in the Health Assistant program and her goal to become a nurse.

And what made you decide to come to our school?

"More education that I would get in my home school…It's more hands-on and stuff."

Did you think about coming here many years before you came or not?

"Yeah, like um, like when I was in kindergarten, I thought about coming here, my sister did." (Student Interview 6/S p.1)

What made you pick our field?

"Cause I always wanted to be a nurse."

Oh, well you're going to get some clinical experience in high school….you'll see if you like it.

"Actually, I have a whole list of things I want to be…and I really want to be a nurse… I like working with children…" (Student Interview 6/S p.1)

Socially, Jean described herself as not like other kids her age and that her life was not like other teens. She did not see herself as a 'loner', rather as a student who chose to do her book work alone. Jean believed that she had friends in the vocational program. She also stated that she didn't like it when teens bullied each other, and she was willing to intervene in those situations.

Kathy appeared very interested during the interview to offer her thoughts about her education in general and coming to the vocational school. Kathy's attendance record was fair. Her attitude towards the program appeared moderately focused. Kathy lived in a single parent home in a distressed part of the county and she did not receive free/reduced lunches. Kathy was also young for her grade. Kathy stated she enjoyed learning the lab skills the most. She described herself as getting along with her peers. Kathy stated that she was uncomfortable with the adolescent status issues she saw in her home school. Kathy added that peers that don't get along in school were made fun of, especially if their clothes were different. She left her home school because of its uniform policy. Kathy liked most academic subjects in the past, except math and science. Kathy could see herself doing well in a subject if it matters to her goals. She identified herself as motivated and directed. The main reason she gave for her choice of a vocational education was to get a job and to get away from the uniform policy at her home school.

Did your guidance counselor want you to come?

> Uh…no, I just I wanted to come here 'cause I really didn't like ****(home school)…and the uniforms…I decided to come here…and I wanted to work at the hospitals. (Student Interview 6/S p.1)

Kathy admitted that she could have gotten better grades if her relationships with her teachers had been more positive. She identified how she felt when teachers had favorite students. "Yeah, 'cause if you don't like the teacher you might not want to your best." She elaborated about the courses she did not do well in (Student Interview 9/S, p. 4). Kathy also described how she felt about some of her teachers and if a better relationship with them would have helped her. "It didn't feel fair, because they have their relatives in the class and they would like change their grades; because they were like uncles you know and stuff. They would change their grades and stuff" (Student Interview 9/S, p. 4).

When Kathy was asked if high school students had good perspectives on what makes school interesting and learning important she responded that "if it's something they (students) actually want to do they would be better at it"(Student Interview 9/S, p. 5).

A short time after this interview Kathy requested a change of vocational program. Her decision to change was acknowledged by the vocational teacher and the Principal. It was agreed that she would stay in the Health Assistant program for the first grading period of nine weeks. She was asked about why she wanted to change vocational programs. Her answered were that her friends from her home school were in another program and that she thought she would like to try that program too. Later in the first grading period, Kathy decided to stay in the Health Assistant program.

Christine entered the school a higher QPA than Jean or Kathy. Christine offered to complete her interview very early in the school year. She just turned 15 years old that week.

Unlike many of students in the study group, Christine had a very good attendance record. She lived with her parents. However, she was eligible for free/reduced lunches, and her home was also very rural part of the county. Like Meredith, Christine had a 1 ½ hour bus ride each way to attend the vocational school. She stated concrete reasons for her decision to attend the vocational school.

> I don't know, I just wanted to get…**** (Home School) is a fine place for your academic stuff, but I wanted to get an extra skill so that when I leave high school I can go out and work when I go on to college to get my RN…and at nursing school I'll have something to support myself (Student Interview 12/S, p. 1).

Is there a reason, or personal experience, that had an effect on why you choose to come to the vocational school?

> I think I just thought I'd like it a lot better. And that it would help me get a better idea in what I want to do. I know I wanted to go into the health field, but I didn't know like exactly…if I want to be an RN or an X-ray…or just…so I figured it would help me get a better…

How do you like the change in schools going from an academic program to a vocational one?

> I like it better. I like…'cause academic at **** (Home School) we just stayed academics all day. And here I get to do something I like for half a day and then do something I don't as much like the other half. So it smoothes it out and makes it better to come to school. Student Interview 12/S, p. 1)

Christine appeared eager to learn about the program. She stated that she liked the idea of developing her own strategy to complete her assignments. Christine believed that students can learn from each other and she liked group learning. Christine indicated she enjoyed 'hands-on' learning, or the 'procedures' as opposed to the traditional academic learning at her home school.

> I think a lot of people like it, because, you know, it's different. Whenever you're in academics or at school like the home school, you're always working by yourself. You have to work independently, it's like so boring. And like every single pm you're interacting with other people its better. I think it is.

Do you think that you can learn more that way?

I do, 'cause like you're, you know, someone's having trouble with an answer....oh, it'll work this way…And then they like, you know, if you have something they're going like, she did it this way…like you get a better understanding of something. (Student Interview 12/S, p. 4)

Christine's mannerisms during the conversation were remarkably animated and composed for her age. She appeared to have a very high level of self-presence. She often spoke about her home school where the students have 'clicks' such as the 'Preps' or the 'Freaks'. She stated that her friends often called her a 'Prep' or a cross between the two. Her relatives had some background in the health professions. She was not quite sure which health career she was most interested; she hoped that the program will give her an opportunity to look into different ones on clinical. (The students had already been given information about work-based learning or 'clinical'.) She described herself as a 'so-so' student with A's, B's and C's, but that when she is interested in something she will work harder on it even if the subject is difficult. She felt that was already making friends in the vocational school, except for one student she had an 'ongoing' feud with since early grade school at her home school.

Christine mentioned how she would focus hard on a difficult course if she believed the course would be important to her career goals. She stated that liked the independent, hands-on learning offered in a vocational program. However, in her academic classes Christine found it difficult to pay attention. She provided some self-reflection about her method of learning.

When it's something I like to do, I can concentrate really good…awesome…If it's like something that I don't, I may…seem like I don't want to do… and it's like, sometimes it's harder to concentrate and grasp new concepts or something… (Student Interview 12/S, p. 2)

Do you think the classroom that you're in now in the first couple days is different from the classrooms that you've been in before?

"Oh yeah! It's a lot more hands-on like…you can do it yourself. You can make own schedule for the day."

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Were you kind of bewildered about that initially when I said here's your work and you have this week to do it?

"I like it better that way. 'Cause I like to know, okay, I have set when I can it, so if I'm busy one day, I can do it the next day." (Student Interview 12/S, pp.1-2)

Christine said she was willing to put extra effort into an academic class if she believed that it would benefit her career goals. She provided the example for her past of when she worked very hard at Spanish last year because she liked the teacher even though she knew that she had no possibility of passing the course.

But you're going to have take Chemistry to go to nursing school, right? Do you think it's going to matter to get a good grade in Chemistry?

"Chemistry, I think yeah…I'm not, I'm probably not going to like Chemistry, but I'm going to do it because I know it will help me later."

That's what I'm going for. Because you'll do something that you find it…has a focus. Is that what you're trying to say?

"Yes, I think it's easier to do something when you know it's going to help you instead of just being like…" (Student Interview 12/S, p.1)

Christine stated she liked teachers who are "interesting", and frankly admitted that she often did not get along with her teachers. She identified how it felt to be a student with a 'reputation' with the teachers in school. The vocational school was seen as a new start for Christine.

How did you get along with your teachers in you other school?

Some of them, like, you know, it's like them wanting to know how you did in your work. They would just kinda understood better, like how it was to be a kid. Other ones were just like…okay, I don't like you, I just want to get class over…

Did you find you could tell when they [teachers] would tell stories about students to each other and you would get like a reputation...either good or bad?

"Oh yeah, they were real bad about that at **** (Home School)."

They are?

"The one substitute teacher …she was asking my other teachers and like they were talking about me…and…. I picked it up, and like are they allowed to do that?"

Did you find that you had a 'clean slate' coming here and having a chance to kinda get to what you wanted to be when you started here?

> Kinda do, because you can just come here and the only people that know are from you home school. Some of them you don't even get to see….you kind of do get a clean slate when you come here. (Student Interview 12/S, p. 4)

As identified in the methodology procedures shown in Table 3.1, Jean, Kathy, and Christine scored (.92) or more in 'Initiative taking', 'Self-evaluation skills', and 'Attention to work'. The students expressed their interest to try new things. They stated they were also willing to follow through on their interests with sufficient effort in school and realistic self-evaluations. Jean's and Kathy's academic disadvantages were noted in their low QPA when entered the vocational school. A question developed at to whether their academic disadvantages could be overcome with their good intentions and interest in the vocational program?

For all of the previous students, with high average scores in the 'five qualities of student engagement', the previous assessment strategies identified them as motivated learners. The previous students were economically disadvantaged.   Socioeconomic issues appeared to have been a factor in the students' choices of changing schools for two reasons. First, the students identified they were faced with adolescent peer pressure and the need to 'fit'. The need to fit in adolescence often includes their clothes, their home, and their parent's jobs. Christine commented about her former school environment and how it felt to be excluded.

How did you get along with your peers at your other school?

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"****'s (Home School) a very cliquey school. There's a lot of like, you're a geek, you're a prep, you're a freak…that what it was like, that was **** (Home School), that's everything. There's like your clothes have to be from here, … it's really cliquey there."

Where did you fit?

"…I didn't really fit…like I just think I don't think I act like a prep…and then like when I hung out with out a **** I'm a freak…so I didn't really fit like in a specific group…" (Student Interview 12/S, p.5)

Second, the students appeared career and job focused enough, even as young as ninth grade, to make a decision to switch to a vocational school. The economic disadvantage of the students was identified either in their parents' employment, free/reduced lunch eligibility, location of home in a poor section of the county. These students were focused on employment and careers in the health field. Although it was not discussed, did the students have a heightened enough sense of their low economic backgrounds when compared to their peers to choose a vocational program to obtain a job and alleviate their immediate plight? Another question was whether students with economic disadvantage should change schools and pursue a vocational education if any of the previous reasons caused this decision?

Tara's score (.83) was slightly below the previous group of students but set apart from the rest of the students in the study group. Tara was very soft spoken. She came to the vocational school after investigating it on the internet. She stated she was definitely looking for a school that didn't have a dress code, unlike her home school. Tara entered the school with a 2.05 QPA and had B in science the previous year. Tara also had a history of absenteeism.

In the interview Tara expressed how much she liked the independent learning the vocational program offered her. Tara scored high in the 'Attention to work', 'Sense of connectedness' and 'Positive interpersonal skills with prior experiences'. These scores appeared to reflect her overall positive attitude towards the vocational school, her peers and teachers, and

her career goal of a Registered Nurse. Tara expressed some difficulty with her attention level if the work did not seem relevant to her. Tara scored fairly low in 'Initiative taking' and 'Self-evaluation skills. Lower scores in these areas may indicate less perseverance in student towards difficult assignments.

Tara's reasons for choosing the Health Assistant program stemmed from personal experiences in her family. The cooperative learning available in vocational schools seemed to suit Tara's needs for help with her goal of employment. Tara stated she preferred to work in groups. She did try to seek out teachers when she needed help. Unlike many of the students, Tara indicated that she had no problems with teachers in the past, and described some teachers as closer to her than others. The home life Tara's described was more fragile than most of the other students. At the time of the first interview, she lived with her aunt and was waiting for her mother's reentry into her life. She stated that she hoped to live with her mother again.

Tara was not as educationally or economically disadvantaged as some of the other students in the group, but her home life was very unstable. She was observed often in the classroom not participating in the group activities. Her attendance was mediocre and began to fall off gradually in the first semester of the school year.

Although many of previous students had strong senses of connectedness for their choices of a vocational education, only a few had realistic career objectives and the prerequisite academic abilities. The other students, such as Kathy and Tara, appeared ambivalent about their education. Instead they expressed more information about how they defined their social selves with new peers. Or like Christine the students expressed concern about how they needed to remake their poor reputations as 'bad' students with teachers.

Four students, Natalie, Annette, Katherine, and Marilyn, averaged in the (.60) range for student engagement. 'Attention to work', 'Initiative-taking behaviors', 'Sense of connectedness' and 'Positive interpersonal skills' were often the areas of their lowest scores. According to the research on student engagement, the students' scores were not remarkable. Many students enter vocational schools with poor grades, poor work ethics, and histories of difficulty handling relationships with teachers and peers. These qualities were strongly identified with 'at-risk' and/or disadvantaged students.

Natalie's 2.85 QPA was fairly high when compared to the other students in the study group. She received learning support and had a good attendance record. Natalie received free/reduced lunches and lived with both parents in a very poor section of the county. Her affect appeared guarded most of the time. She expressed a moderate level of interest in the Health Assistant program, and indicated that she was undecided about which health career she would focus on. Natalie stated that she liked the opportunity to sit in a more open learning environment and to get out of her seat more. She was concerned about her academic courses, and admitted at time of the interview she was "failing" two subjects. She was observed readily asking for help from her learning support teachers which was not common for high school students to exhibit. Natalie appeared the most animated when she discussed her reasons for choosing a health career. She shared the information about her cousin's car accident and subsequent hospital stay in the Intensive Care Unit. Natalie was permitted to visit him and this experience appeared to make a strong impression on her. After this incident, she wanted to "help people" and thought the Health Assistant shop could prepare her to do this.

She described very clearly the conditions in which she learned best. "That they help us and teach us in different ways, not just be sitting and writing, it gets boring after while." (Student

Interview 7/S, p.1) She was asked to compare the vocational school with her former school and she provided the following comment. "Well, the classes are longer and we have not academics at all. A shop to look forward to where we can actually learn more …than going to academics everyday" (Student Interview 7/S, p. 2).

Natalie indicated that she had numerous altercations with her previous teachers and a record of in-school suspensions (ISS) and out of school suspensions (OSS). She described herself as "talking back" to the teachers and leaving the classroom. However, Natalie scored a (.67) for 'Positive interpersonal skills with prior experiences'. The reason for the disparity between Natalie's score for 'Positive interpersonal skills with prior experiences' and a history of in-school and out of school suspensions was observed in the following dialogue. In this example Natalie appeared to understand what would make a confrontational situation better.

> Yeah, in my old school they used to just yell it out in front of the whole class. That's just, I remember my one teacher's class before, and he …just started yelling at me in from of the class, all the students…I didn't like that. Student Interview 7/S. p.3)

Yet, within the category 'Positive interpersonal skills with prior experiences' Natalie scored was low for 'How teacher/student relationship affects student work'. The student exclaimed, "Like, I wouldn't get something, get frustrated, and then get mad and I'd start yelling at the teacher and I'd get in trouble". (Student Interview 1, p.15) Natalie also expressed ambivalence towards her academics in the vocational school. She stated she was bored at times because of the repetition in the academics classes to work she already had in her home school. However, she was also anxious about courses that she was not used to because she believed that if she failed she would have to return to her former high school.

Is it too much work?

Most of it's too much work, or I don't need to know about it if learned it already….It's like all confusing me, because from moving to one school from another, it's confusing with the work…Because my old school, we had longer periods and more time to do stuff…(Student Interview 7/S, p. 7)

Annette was a quiet 15 year old. She was two months pregnant at the time of the first interview. The father of her baby was twenty years old. She lived with her parents, but later moved in with her sister who had dropped out of school. Her father was on disability because of a car accident which left him semi-paralyzed on one side. Her mother worked in the housekeeping department of a hospital. These two experiences provided Annette with an introduction to health care. Her career goal was to "help other people" and this was also the reason why she chose the Health Assistant program. She planned to go on home bound instruction after the birth in April and to the vocational school before the end of the school year.

Annette indicated that she did not like her home school. She attended Cyber School her first year of high school (9th grade). She sat with other students in the vocational program who were also quiet. Annette had history of poor attendance, but her QPA was higher than many of her peers in the study group. She did not receive reduced/free lunches. However her sister's home, where she was residing, was in a lower income section of the county.

Annette scored low for 'Positive interpersonal skills with prior experiences' (.42) and 'Self-evaluation skills' (.38). In the research it was noted that students with poor interpersonal skills may feel alienated from their peers and teachers. Annette expressed this sense of alienation when she described her peers;

I just didn't like all the people there…um…I don't know…they're mean". She described similar feelings with teachers who observed the other students "putting her down"; "Um…they did help me, but not a much as I needed. (Student Interview 1, p. 34)

Annette was asked to describe her Cyber school experience:

It's kind of hard; you don't have someone teaching you…"…"But I did actually good, I got good grades and everything." She was asked why she chose Cyber school over her previous school? "Well, when I was in **** (Home School), I didn't like it so they said if I took cyber school for maybe a year and then come here it would be better…maybe I'd get along with was thorough. However, when she was observed 'daydreaming' in the classroom, her work was also unfinished.

Annette viewed herself as able to approach a teacher for help. She appeared to have an awareness of good versus bad instruction in the teachers. Her grades ranged from A's to D's.

Katherine was a 16 year old junior who wanted to come to the vocational school from the previous year, but she stated that her guidance counselor discouraged it. Katherine expressed a strong interest a nursing career and she entered the vocational school with a 3.4 QPA. That same year, however, after Katherine had many behavioral incidents and threatened to drop out of school, the guidance counselor encouraged her to come to the vocational school. Katherine was able to reflect on her behavior and her relationships with teachers. She was very soft spoken as she considered some of the behaviors she stated she displayed in previous high school years. She was asked twice about her relationships with teachers. Each time she had a smirk on her face and she appeared to be viewing the scenes in her head. However, she would not elaborate on them very much.

Katherine previous behaviors in school led to a history of class disruptions, pass abuses, and cutting school. She stated that she had many days of ISS and OSS last year. Katherine missed 60 days of school and added that she still passed for the year. During the school year Katherine worked 25-35 hours per week. She described her difficulties in school in the following interaction.

Overall, how would you describe your relationships with previous teachers? You have another smile on your face…You look like you have a little video going in your head.

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"Well, I've had good years and bad years so….I mean, like really hated the last couple

years so I spent a lot of time getting in trouble to get out of school."

Are you trying to indicate to me that you left or choose to have interactions with teachers that were negative so that you could get out of school?

> There was times like that…there was other times I just didn't want to be there so my attitude was to be mad at everyone, you know. When I go to work I've learned that I've gotta attitude anyway. Kinda of like changing a lot…I have a lot in the last couple, in the year last year and a half, it's changed a lot in my life. Especially with having an older boyfriend, that changed a lot. (Student Interview 15/J, p. 5)

Katherine described herself as an auditory learner because she enjoyed listening to the

demonstrations of the health related skills in the Health Assistant program. Katherine shared

what it was like for her in boring classes compared to ones that interested her in her former

school. She didn't like the videos or notes, but found listening to the shop procedures interesting.

She enjoyed learning by doing and wished more academic classes had time to do things beside

sit in a chair and read.

> I don't know 'cause like I really didn't like it (Home School). I really didn't. And…when I was there, there was classes that I did enjoy and they would go really fast. And then there was like a lot of classes that I hated and they would go so slow, because you were either…like anything to sleep…Now the science classes and math classes I enjoyed those…Like science lab. Like I had Chem with a lab last year…and I loved all the experiments, but when we had to sit down and take notes I couldn't do it [regular academics]. So like I think if we had a little bit more of moving around…not games… (Student Interview 15/J, p. 6)

Katherine was able to identify what teaching methods best suited her and what were her

most problematic areas in academics were also.

In the classroom there are a lot of activities. What kinds of activities make you seek out more help?... The written or the skills?

> Oh, the written. I have more trouble with that, 'cause I'm afraid I not writing and getting it done…the skills, like I like to do those over and over again, but I also like to try it, 'cause I seem to get it better if I just try it instead of just like listening…(Student Interview 15/J, p. 2)

She also identified herself as a persistent student given the right circumstances.

Do you feel like you persist when things are hard? Or do you kind of shut down and just pass it off?

> Depends on if it's something I know I have to really do. If it's something I know that I can get with someone else having someone else do for me…or whatever…then I'll let someone else do it. But if it's something that I know that I have to really do then I'll keep trying until I get it. (Student Interview 15/J, p. 3)

Katherine verbalizations indicated that she had socio-emotional issues present that were also noted in the research to be common for other adolescents. For example, she dated a 21 year old boyfriend. She indicated her boyfriend had motivated her to come to school. As noted earlier, Katherine worked many after school hours to pay off a car her father lent her even before she learned how to drive. She stated her mother was in favor of her dropping out of school because of the turmoil she was in the past few years. Katherine's brother made $12 per hour as a drop out and this fact seemed to entice her to drop out also. However, when we continued our discussion during the car ride home, Katherine also mentioned that it had been hard for her brother to find work as a drop out.

Katherine was observed to have much less eye contact during the interview than the other students in the study group. She often answered questions as if she were looking at a movie off to the side. However, she spoke very clearly and followed the flow of the conversation well. Katherine alluded a few times to a major illness or other situation she had a few years ago and that it is "all past her now". She stated she realized the other side of a student-teacher relationship when she baby sits, and now she doesn't feel a need to have trouble in her school year.

Katherine scored very high on 'initiative taking' (.92) and 'sense of connectedness behaviors' (.92). However, she also scored the lowest of the students for 'Self-evaluation skills'

(.25). In the research low self-evaluation skills in students were often indicative of someone not willing to reflect on how their behaviors in and out of school affected their progress in school. However, with her change in schools Katherine gave the impression that she was sincerely looking at her behaviors and how they could affect her future goals.

Marilyn entered the vocational school with a 3.14 QPA. The student described her grades as "pretty average…I mean, the first nine weeks usually I would get like really high and then like I'd come down a little bit" (Student Interview 1, 16/S p. 1). School attendance had not been a problem for her. Marilyn lived in a single parent home and received free/reduced lunches. During the interview it became apparent that she was only moderately interested in a career in the health field. Yet when she was directly asked about high school or education as being necessary she provided an eloquent statement.

> I think that the programs that people have out there, and like the people that come in, they teach you that you *need* school…Like, this is what you need it for. And if you don't have this, you're not going to have anything. Like, kids they look at them, like, they look at them like they're stupid, but like in their minds, like it's in the back of their head, if I don't get done, I'm not going to do anything with my life. And like, I see like different people like, they didn't do anything with their lives, and it's like I don't want to be like that. I don't want my life to end up like that, so I'm trying to do something with my life. Student Interview 16/S, p. 7)

Marilyn seemed to be a very outgoing and was the only student in the study group involved in extra curricular activities at their home school. She scored (1.00) for 'positive interpersonal skills with prior experience' which appeared to supported by her willingness to participate in group activities. In the interview, Marilyn expressed very little interest in hands-on learning and her reasons for attending the vocational school were vague. However, Marilyn elaborated on how a student could attend a vocational school and not miss out on extracurricular activities. She provided an impression of the reputation vocational education has with students.

I think…like I like this school, but like a lot of people call it "Slow Tech" and stuff like that. Likes it's for slow people and stuff like that. But I think it's just like for people who's trying make a career of their life. Like, they say, like people over at *** (Home school), they say you miss out on a lot of high school events…I'm still going to all the high school events that go over at **** (Home School). So I don't think I'm missing out on anything but all the drama… (Student Interview 16/S, p. 8)

Marilyn also shared her experiences as a teenager in an out-of-state high school which

provided a different view of how she felt about her current surroundings in the vocational school.

The kids in, when I was in **** (other state), they used to pick on me, yeah, I understand that. Like, there's kids, they pick on people. So it's like, I didn't understand why then but, kids like, when somebody does something to you, you want to take it out on somebody else. So it's like a cycle. Like somebody's going to do it you, so you do it to somebody else and then they do it to somebody else. I was like, it didn't bother me, it's like I kept it inside for a long time. But, it doesn't bother me now. I mean right now, like, I got into sports and stuff like that so I have a lot of friends. Like everybody knows who I am. (Student Interview 16/S, pp. 5-6)

Marilyn was observed to do well in program during the first few weeks of school.

However, she had a habit of trying to sleep in class. When she was approached about this issue,

she stated it happened after she ate, or she when was bored. She was observed to be uninterested

in the hands-on work or lab assignments. As her interview progress, Marilyn seemed to validate

the previous classroom observations of her. She did not express much interest in hands-on

learning and provided vague reasons for attending the school. Shortly after the interview Marilyn

assisted another student to hide some drugs by putting them in her locker. This altercation led to

an immediate 10 days out of school suspension and her eventual expulsion from the school.

Marilyn returned to her home school after the expulsion.

According to the research, the scores for Natalie, Annette, Katherine, and Marilyn were

typical for students who enter vocational schools. The students' grades were above average,

with the exception of Natalie. However, the students, except for Marilyn, who scored very high

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for 'Positive interpersonal skills with prior experience', expressed difficulty with previous teachers, peers, or both. The students' poor interpersonal interactions, either with teachers or their peers or both, may have led them to have difficulty learning in their previous schools. Their poor interpersonal skills seemed to have led to their choice of a new school despite their above average grades. For example, Annette, found Cyber School allowed her to escape the peer pressures from her previous school. Katherine stated that her she had an alternate to drop out of school if the vocational school did not work out for her. Prior to entering the vocational school, Natalie developed a disruptive 'acting out' mechanism to deal with poor interpersonal teacher and peer relationships. She hoped in the vocational school to develop better relationships with her teachers and peers. These students appeared to have been hindered in their education by their interpersonal relationships and the negative behaviors which resulted from their poor interpersonal relationships. Their negative behavioral issues may also have affected their academic progress. Often the students did not come to school or had ISS or OSS assignments which limited their time in the classrooms.

Five students, Patty, Andria, Susan, Casey, and Mathew average scores for the five qualities of student engagement were between (.49) and (.59). Patty was a 17 year old junior who entered the vocational program two months late. Prior to her entrance, she was placed in an alternative juvenile placement program. She attended the vocational school from this placement. (Numerous other students had attended the vocational school from the same juvenile placement facility.) She was on probation because of an altercation with a police officer. Patty described herself as "I'm a fighter" (Student Interview 4/J, p. 4). She was asked how old she was when she started fighting? She replied, "Where I come from if you in a fight it was part of life…12" (Student Interview 4/J, p. 4). When Patty was not in a juvenile placement facility she did not

live with her parents. Instead, she lived with her sister which did not work out. She stated the reason she was in the juvenile placement facility instead of with her sister was "'Cause I didn't want to listen to my sister" (Student Interview 4/J, p. 5). Patty entered the program with a (1.4) QPA. She appeared to be a very articulate student. Her QPA did not appear to match her level of intelligence. Patty scored exceptionally low in 'Self-evaluation skills' (.25). The low scores for Patty's responses in the subsections within the 'Self-evaluation skills' ('Student evaluation for levels of interest and motivation' and 'Response to hard/boring assignment) indicated that she was probably not capable of self-direction in the open learning environment of vocational education classroom. Patty indicated that she was aware of when she needed help, but still she chose not to seek it out. She was asked to describe herself when the work was hard. "Sometimes, I say "forget it"; sometimes I'll just see it through" (Student Interview 4/J, p. 3).

Patty displayed minimal eye contact during the interview. She stated that "she doesn't many friends in school, but just acquaintances", and she "gets along better with males that females" (Student Interview 4/J, p. 2). When asked to elaborate further, she declined. Patty provided the following window into her relationships with her peers.

> I don't, no, I don't really have friends. I only really have…my friends are like older…older. Not older, but, I don't know I really don't deal with females, I just really like talk to just boys. But I have some female friends.(Student Interview 4/J, p. 3)

Patty did not mention any serious problems in her relationships with teachers during the past few school years. In the few weeks she attended the vocational school she had some altercations with teachers which led to disciplinary actions. Cosmetology was the vocational program Patty selected as her 'first choice'. Students cannot enter the Cosmetology program as Juniors because of the certification hours required in the curriculum. The Health Assistant program was Patty's 'second choice'. But, she stated her real goal was to become a dancer.

Patty was vague about her interests in the Health Assistant program. She responded to the question why she chose the Health Assistant program with, "Try something new" and I don't know…just, I like helping people". (Student Interview 4/J, p. 1)

Patty provided the following response when she was asked "what she did when she needed more help in school?"

> Um…well, some subjects, it just depends on if I knew it or not…like…Sometimes I need help in anything, it can be something simple, I'll still need help with it. I don't normally ask for help, I like to sit there and help myself. (Student Interview 4/J, p. 2)

Patty expressed a strong 'sense of connectedness behaviors' in the interview. She envisioned the vocational program as more interesting than her previous school, however her strong interested did not involve the planning of her education. A few weeks after this interview, Patty's previous history of altercations with others became evident again She began to exhibit poor interpersonal relationships with the other students in the Health Assistant program She also began to have altercations with the teachers in the building. She left the school only a few weeks after starting.

Andrea entered the school in her junior year. She stated that she disliked her home school and had almost all E's during her last year there. Andrea's previous grades were 0.00 QPA. She was absent for 77 days last year. She chose a vocational education because she wants to be a pediatric nurse. Andrea lived with two parents; her mother and stepfather. She stated that she did not remember her father around at all. At the time of the interview, she was dating a 21 year old. Andrea stated that her boyfriend finished high school because of her continued support for this goal. Andrea had a history of anorexia and had been hospitalized for severe weight loss. Her build when I met her was strikingly thin, well below the normal weight for her height. She stated that she in the past she had felt "overwhelmed" with negatives in her life and

quit eating. Andrea believed that she had no close relationships with any teachers, except maybe

once in second grade. Her initial reason for coming to the vocational school seemed to be to get

away from her previous high school teachers. However, she also included her career goals as a

part of choosing the school

What made you decide to come to our school instead of **** (Home school)?

I don't like the other teachers at **** (Home school).

You didn't like any of them? Why though? Can you give me any reasons?

"I just like…it's like…I just don't like them…they just like are constantly in my

space…like I just kind of like sit there and now I'm here." (Student Interview 5/J, p. 1)

Later in the interview Andrea elaborated further about her decision to change schools.

It's just like, I never pay attention or it's not a school that I wanted to be in…and
it's like…it was so hard and like the teachers could care less what you did…And
if you wanted to walk the halls they just give you a pass to walk the halls. It's not
something… it's not a school that people are learning from. And it's like I never
go the education there. And here, my grades are A's and B's. It's like I totally
just came up a whole bunch. (Student Interview 5/J, p.)

Andrea stated very clear career goals. They were based on her past experiences being around

young children.

 "Well, what I want to become is a pediatrician…" "Well a pediatric nurse when I get out

of school. I want to go to college and go do that." (Student Interview 5/J, p.1)

Well, like my sister…she has two kids and I've close to them….I just been
saying, "Oh, I want to be a nurse". And when I found that Vo-Tech does nursing
I said, 'Oh, I'll go to Vo-Tech for nursing'. I was like, "'No matter what, I'm
going to go to Vo-Tech for nursing so I can…' I have heads up before and I know
what I'm doing before third year going to college. And I'll know a lot more stuff
then they do so….Be a nurse, I'm just like sticking to that goal… (Student
Interview 5/J, p. 3)

Andrea's perception of her former teachers was that they just gave the students the work

and did not interact much with them. She added that her previous teacher were not approachable

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about problems she had with assignments. Andrea described herself as a physical learner who enjoyed the lab skills in the shop. Andrea indicated that she had more reason to do her book work when there was a lab that applied to it. She stated that she was a "shy" person. Observations of Andrea in class for a few weeks did not provide a similar description of Andrea. Instead, she was observed to have an affront to her interpersonal communications and was often clipped and short in her expressions. Andrea mentioned that she came to the vocational school despite the negative reputation she had heard about the school. She described her vocational school classes as more interesting than her previous school, and but academically easier. Andrea's definition of 'easier' meant that the teachers reviewed the materials more instead of just handing out the assignments and telling the students to complete them on their own. The teachers in the vocational school appeared to be more helpful to Andrea. She stated that she enjoyed her classmates and liked the idea of group learning and the pod formation of the vocational classroom. However, Andrea was observed often talking in class when she was supposed to be reading her assignments or completing her labs. Her work during the first part of the school was often incomplete or late.

An observation about Andrea was the numerous contradictions between her interview responses and the information obtained from her permanent record. For example, Andrea scored very low in 'Attention to work' (.25) and 'Positive interpersonal skills with prior experiences (.25). Examples of Andrea's attention to her work and her interpersonal skills were in the following:

Well, when you do your work do you watch real closely for all the little details in the assignment or just kind of look at the grand scheme of things*?*

"I just like skim it over and then ask people… I fill out the answers…"

It is easy for you to concentrate, or do you find your mind wandering a lot?

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"Sometimes I wander…but most of the time…I just said…I do concentrate a lot."

What types of reasons makes it easy to concentrate more…Is it because you like the work…or is it because it's interesting or something like that…or…?

"But like if I, when I concentrate more it's like 'cause I'm interested in the thing. Or it's like; I just going to do it to so I can get done with it…" (Student Interview 5/J, p.1)

However, she scored high for 'Initiative taking' and 'Self evaluation skills' (.63) when the information from her interview was applied to the matrix of the five qualities of student engagement. However Andrea's initiative was not always towards a goal to do well in school.

> Like I can tell when I'm learning something or I can tell when I'm not learning something. It's like when I'm not learning something it's like I just either giving up on it or I'll ask for help…most likely I'm just giving up on it. It's like…some of the time I ask for help. (Student Interview 5/J, p.4)

> They (teachers) pretty much said like…we'll yeah I could say that like well "if you want to do…if you want to do your work do it, it you don't then don't." That's how they put. 'If you want to do your work then do it, if you don't then don't.

And what did you do?

> Sometimes I did it and like sometimes I didn't. Most of the time I did my work…so I could pass, because like I needed them classes to graduate. I needed to get out of the school…I just did my work so I could pretty much finish school." (Student Interview 5/J, p.8)

Andrea's previous absenteeism was discussed and compared to her attendance since she started the vocational school. She offered a view of what may occur with other high school students when they wrestle with staying home or going to school. Andrea was asked if she believed the change in her schools had an impact on her attendance.

When you get up in the morning and facing days like that, how did that feel?

"I pretty much just didn't want to go to school them days."

Are you a little more enthused or…happy?

I pretty much like, I pretty much more ready to come to school….and then it's like ah man, I don't want to go to school today…Well, I got to go to school…I gotta…I'm going to be seventeen, I need to wake up and mature….a couple of things that I've been doing to make myself a little immature but….It's just like stupid things that I do…Like out of school…and then …before school or on the weekends…It used to put myself down…but like now that I don't do any of that…it helps me more. (Student Interview 5/J, p.8)

Andrea articulated what was in her mind when she considered a vocational education. She indicated that when a student selects a vocational program there was a contract, of sorts, with the teacher.

Yeah, just like…You pick your shop; You're pretty much telling the teacher, like you want to learn that shop…and it's like that's what you end up wanting to do in the future…Yeah, you're pretty are telling the teacher what you want to learn. (Student Interview 5/J, p.9)

Andrea's permanent was reviewed and the grades and attendance data did not corroborate what type of student she stated she was in her interview. She entered the vocational school with a (0.00) QPA from 10th grades and had a history of high absenteeism. Yet, in the interview Andrea appeared to have a moderately focused attitude towards her school work. Andrea added that she was capable of understanding her level of ability;

And it's like you wish you say 'well, you're going too fast…' And if you do that they get mad about it. But yeah, sometimes people my age, they should like at least be like just tell them how we learn and it's easiest for us to learn. (Student Interview 1, p. 10)

Andrea provided an example of adolescent 'magical thinking'. Magical thinking in psychology was seen in students their beliefs and expressions to others of parts of themselves, their families, their scholastic abilities, or even groups they associate with, that were not even near reality. The students in the study who used magical thinking appeared to believe the words they said, even if there was concrete information, such as their permanent records, which indicated the information was untrue. Andrea was very believable in her interview. Her permanent record was not

reviewed until after the interviews were completed as mentioned earlier. She presented herself as a bright and articulate student who knew what she wanted from the vocational school and where she was going in her career choices. However, her seriously disadvantaged academic background left an enormous hurdle for her to overcome when she first entered the vocational school.

Susan entered the school with a (1.90) QPA. She had good attendance record and lived with her mother. Her mother worked as a Nursing Assistant. Susan was eligible for free/reduced lunches. Her home was located in a working class section of the county near abandoned steel foundries. She scored (.53) for the five areas of engagement identified in Student Interview 1. Susan scored very low in 'Attention to work' (.25), 'Initiative taking behaviors' (.41) and 'Self evaluation skills' (.37). One reason for the previous low scores may have been the fact that Susan received learning support and was classified as educationally mentally retarded (EMR). She was animated during the interview which is not usually seen in students who are EMR. Sara laughed a lot and was very engaging in her mannerisms. However, she displayed some difficulty when the questions required her to provide rationale for her answers. Susan also had difficulty when she was asked to respond to questions in the third persona as with the scenarios. Susan's responses seemed more one dimensional compared to her peers and she had difficulty trying to qualify her feelings. She either liked or didn't like something. She stated that her mother was in the health professions and this had encouraged her to go into them. Susan expressed no desire to help others and she had no career goals that would have led her to choose the Health Assistant program. Susan identified herself as someone who could not concentrate and was prone to behavior such as wandering around the classroom to deal with the inability to concentrate.

Casey was very soft-spoken. She also scored below the average (.49) for the five qualities of student engagement identified for Student Interview 1. Casey entered the vocational school with a 2.0 QPA and a poor attendance record. She did not receive free/reduced lunches, but her home was located in distressed part of the county. She stated that her previous math grades were A's until she started high school, but she lost interest in math and her grades fell. Casey also identified how her relationships with her teachers affected the effort she would put for in the class and the grade that would result. "Because the teacher explains everything and it's easier than if you just read stuff out of the books…" …" (Student Interview 14/S, p. 4).

…and how would you say it looked with different grades for those classes you had that were good with teachers or were bad with teachers how would that look?

"Um…I only got bad grades in math…I got like straight A's until I high school and then...I don't know…I didn't like math."

Your math or your teacher?

"The teacher."

Okay. It sounds like you liked math…

"Well, like last year I got an A in math….the year before that math teacher was….didn't do anything to help us in eight grade…"

Yeah…

"But I got an A last year (ninth grade) in math."

Wow, you're back up to an A…?

"I just didn't like the teacher…" (Student Interview 14/S, p. 4)

Casey's 'Positive interpersonal skills with prior experiences' were low at (.25). This was corroborated with her interview statements about her previous teachers. The low score for 'Positive interpersonal skills with prior experience' was further substantiated when Casey

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provided her reasons for changing schools. The first reason was her strong dislike of her home school. The second reason was her interest in working in a doctor's office. She mentioned that she had a history of problems with teachers in previous years that included some suspensions. Casey added that she had non-physical fights in previous years with some of her peers. She stated in the interview "I was always in trouble" and "I always had detention…I was always late for class…I was in ISS (in-school suspension) a lot…" (Student Interview 14/S, p.1).

When she asked to describe her relationships with previous teachers overall the student indicated, "I had good relationships with teachers…"(Student Interview 14/S, p.5). However, Casey also indicated the opposite when she stated that the teachers did not talk with the students and "I didn't like the teachers…I didn't like the school" (Student Interview 14/S, p. 2). Casey elaborated on her strong reasons for leaving her home school, although they were not particularly career linked. She want to "Just get out of **** (Home school) where she was always in trouble.

You were in trouble a lot?...With the teachers or the kids mostly?

"The teachers…"

Oh teachers, really, I can't believe it…

"…and the kids…I don't like the people there."

What kind of things were in trouble for, just off the top of your head?

I always had detention…I was always late for class…I was in ISS a lot…"

Did you have any fighting with the students at all, or just things that were more with the teachers?

"I've had a couple with just the students….not fist fights, but…"

Words and things…?

"Yeah…"

Do you think coming here will give you a chance to change?

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"Yeah, I like it better."

You do like it better…What do you like about here compared to **** (Home school)?

"There's different people here…It's not like everybody's from one school…people from different schools…" (Student Interview 14/S, p.1)

Casey choice of a vocational school appeared more related to interpersonal issues with teachers and peers than to a career objective. Casey also did not express a clear career focus or goal for after graduation. She stated she was tired of school, although forensic medicine appealed to her. Casey scored below the average for 'Attention to work' (.50) and 'Initiative taking' (.42) which could be attributed to her lack of career focus. However, she indicated a strong response about 'Finishing a project; "I can't stand not finishing something after I start it…" with an equally passive response for 'Seeking out help'. When Casey was asked what she would do if the teacher ignored her questions and requests for help the student stated; "I'll do it by myself how I think it should be done" (Student Interview 1, p. 38).

Overall, Casey expressed reasons for her choice of the vocational school which were often expressed by other students when they entered a vocational program for the first time. Vocational education became a 'fresh start' for some of the new students. However, Casey did not have a strong career interest which may have been the reason she scored low on 'Sense of connectedness behaviors'. This score was unlike the many of the other students in the study who entered the vocational school with stronger senses of personal connectedness to a career or vocation.

Mathew entered the school with a (.66) QPA. He mentioned that he often had arguments with teachers and peers. Mathew's explained that he had a temper when people made him angry. However, he was always quiet and respectful to the teacher and his peers in the vocational

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classroom. He lived with his father and stepmother. Mathew indicated that he and his step mother often fought. Mathew's mother lived out of state and he saw her infrequently during the school year. Some of Mathew's 'hot headedness' led to acting out with teachers and peers in the vocational school. According to his father, Mathew had been increasingly volatile at home. His father relayed his concerns about Mathew at Open House. His father mentioned a recent incident that just prior to Open House when Mathew jumped out of his father's moving truck when they were arguing.

Mathew was observed often involved in the activities in the vocational classroom. He responded better to being asked to something than to being told to do it. He was also amenable to being reasoned with when issues arose. During the interview he did mentioned some issues with male students at his former school. Mathew wouldn't elaborate beyond the fact that there were some fights. He quietly added that he got along with most people.

Mathew indicated that he did not like any book work. His aversion to reading and writing assignments was observed every day in the vocational classroom. However, in Mathew's permanent record it was noted that he attended summer school to make up his ninth grade credits as a prerequisite to enter the vocational school. When asked about the Health Assistant program he responded "Alright, it's…you gotta do a lot of writing…" (Student Interview 10/S, p. 1).

In the first few weeks of the vocational program Mathew found the book work to be very difficult. He was observed struggling with reading material. Closer observation and assessment of his reading skills revealed that Mathew's reading abilities were well below his grade level. Mathew admitted that he struggled a lot with reading comprehension and writing skills. He was often observed using the 'hunt and find' method to answer questions without reading for comprehension. This reading method indicated the student may have learned to read for answers

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to questions rather for comprehension. Mathew explained his difficulty with the vocational written assignments in the following:

> The only problem with the book work and stuff, the only thing is I don't really like it…., like, like the writing, I really don't like the questions, some of the questions they ask you…they can "ask what you do?" like for this and that, those are okay…I'm like and multiple choice and stuff and some of the lists are fine, but it's actually hard to find stuff in the book. Like, sometimes it's hard to find the words and stuff…

Are you looking for the word to answer the question or are you reading the whole chapter first?

"Well, I was reading like, I started to read the chapter and stuff, and then it takes a lot of time to…and then I like kind of like skim through it and stuff."

Mathew did not express a strong 'Sense of Connectedness' to the vocational program, other than a quick comment about his mother's work in what appeared to be dermatology. He was asked whether his guidance counselor encouraged him to come to the vocational school he indicated there was not much career counseling involved. "They, they really didn't say anything…they just go to…you got to keep your grades up…" (Student Interview 10/S, pp.1-2).

Mathew stated that he preferred the labs and the hands-on learning. He was able to describe the type of learner he was and also identified his area of weakness. He stated that he preferred the cooperative learning that was used in the classroom compared to the usual academic classes where students sit in rows. Mathew was asked if the cooperative learning may have distracted him at times?

> Yeah, like I like…the book work stuff…if people are doing it around me you know…and then I read something you know…'cause some people are asking like for help and stuff and I know some of this stuff…and I know a lot of stuff, but like I don't like to sit down in the classroom…If want to really concentrate in the classroom you know with all the stuff going on…I really like to do the skills stuff, 'cause I can't do that stuff at the house….I read a lot of the book work at my house…you know… (Student Interview 10/S, p. 4)

Mathew appeared to exemplify the 'dilemma' often observed in vocational students. He was very interested in the hands-on skills, but Mathew was unsure about the importance of the reading and written assignments or 'book work'. In the research it was noted that high school students without achievement in the 'practice' of reading struggled. Noted earlier, vocational education required independent learning and independent reading. Therefore students like Mathew, who never learned to read well by themselves, were unable to stay focused in an independent reading assignment in a vocational classroom. Mathew described himself as an auditory learner in his interview which most likely added to his struggle with reading and writing assignments.

> I like it when it's quiet…I like it when real quiet when we're watching a video and stuff….I like it when everything's quiet…like when we're out and we're walking around…and stuff, those noises don't bother me. (Student Interview 10/S, p. 7)

Jackie's academic, socio-emotional, and economic disadvantages were evident when she entered the vocational school. Jackie's entered the vocational school with a 1.57 QPA for 9 grade and 36 excused absences. She was eligible for free/reduced lunches. Jackie also received Learning Support. Jackie lived with her mother, who worked nights. She was the youngest child in the family with much older siblings. Jackie was often home alone with her pet. She did not appear to have many adults checking on whether she made it to school each day. Like Susan, Jackie also scored low for 'Self evaluation skills' (.38). Her responses to 'Attention to work' (.25), 'Initiative taking' (.25), and 'Positive interpersonal skills with prior experience' (.25) were below the average. Jackie's appeared reticent initially in the interview, but later appeared to relax. She stated she was encouraged by her home school to attend the vocational. Last year she had a ten day out of school suspension (OSS) for altercations between herself and a student and a teacher. Jackie remarked that her former teachers passed her so that she would move into the vocational school. She did not complete the work for many of her courses. Cosmetology was

her first choice for a vocational program. Since Cosmetology was full, Jackie randomly chose the Health Assistant program as part of her decision to leave her home school and enter the vocational school.

"I didn't want the uniforms and…I really don't like very many people at **** (Home School), and I wanted to do something with my life."

And did you pick our shop as your first choice or our second choice.

Second….I has Cosmetology first and then, I called the school 'cause I didn't get an answer and they asked me shop I wanted to be in 'cause Cosmetology was filled, and I said 'Health Assistant'.(Student Interview 2/S, p. 1)

Jackie offered view of what students may feel when they are encouraged to leave their home schools.

How were your grades in ** (Home School)?**

"Not very good, but I think I'll do better here."

Why do you think they weren't good?

"'Cause I never did anything…I never did any of my work."

None of it?

"Um, um."

And you're an eleventh grader…? Tenth grader?

"Tenth."

Then how you pass your courses?

Cause they didn't want me, they didn't want me there anymore. 'Cause all…like for English all I did was sleep. With math I did some of work, but the last two or three months of school I didn't do any of it. I just went to sleep. I never did any of my work, after a while.

And they passed you anyway?

Um, um…They didn't want me there 'cause I was….I don't know, like I have, if I don't like something that somebody says to me…I'll say something to them about it. And normally one of teachers gets smart and I just get smart right back. And they didn't want in their classes. They told me, even if I failed, they would pass me anyway 'cause they didn't want there anymore. (tudent Interview 2/s, p.2)

Jackie was placed in a program she 'sort of' selected. Because she received learning support, Jackie was expected to have difficulty with the independent learning, the high level reading comprehension, and hands on skills found in vocational programs. These learning skills were noted to be difficult for regular education students to achieve when they first enter vocational schools. Jackie also perceived vocational education as mainly an alternative to dropping out and did not express strong desires to be in the vocational school.

Yeah, my mom she dropped out whenever she was 16. And my, I think my oldest brother graduated…my mid-age brother graduated and my mid-age brother went to the Navy afterwards. And he did something with his life. And my oldest brother has a really good job now, but he didn't really want to do anything after he got out of school. And none of my family went to college so…I figured I could be something here instead of just drop out…. (Student Interview 2/S, p. 4)

3.1.5 Analysis of the Students' Data Across Student Interview 1

An analysis of Student Interview 1 was completed by developing cross references and comparisons between the students' results in the five questions about student engagement. The following steps were completed to cross reference and compare the students' data:

1. The students' scores for each of the five questions of student engagement were identified.

2. The identified scores were compared with other students' scores in the group.

3. Quantitative information from the students' permanent records was considered.

4. Anecdotal records were reviewed and this information was considered.

5. The subsequent groupings of students which developed from the triangulation of the data described were then further analyzed.

The cross references and comparisons of the students' scores produced contradictory data. Noted earlier, the students' average score in Student Interview 1 for the five qualities of student engagement was (.69). The average score was not anticipated because a fairly high percentage of the students who entered the vocational schools in the past decade had been classified as 'special populations', learning disabled, economically disadvantaged, or education-ally disadvantaged. The study school and the study group were identified as not exceptions to this trend.

(**Author's Note**: In the 2005-06 school year the study school reported total school populations of 445 students. Special populations' students totaled 555. There were 126 learning disabled students, 227 economically disadvantaged, and 186 educationally disadvantaged. Every student in the special populations grouping is considered 'at risk' according the guidelines established by the Wisconsin Department of Public Instruction's guidelines for 'at-risk' placement. Special populations included all subgroups of learning disabled, economically disadvantaged, and educationally disadvantaged students. Learning disabled students were classified by state standards for students requiring educational interventions. Economically disadvantaged were classified as needing or receiving free/reduced lunches; free meals family of four $26,000; reduced meals family of four $37,000. Educationally disadvantaged students had QPA below 2.0; did not read or write at grade level; or failed math, science or English courses or any combination. 'At-risk' students were previously identified in the research and included some of the factors used in the Wisconsin Department of Public Instruction's definition of the term "at-risk" or in serious jeopardy of dropping out are high school students noted below.

1. Three or more credits behind their age/grade level in credits earned toward graduation (in grades 9-1

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2.   being chronically truant
3.   being a school age parent
4.   having a history of personal and/or family drug and alcohol abuse
5.   having parents with low expectations for their child's success or who place little value on education
6.   being a victim of physical, sexual, or emotional abuse
7.   experiencing a family trauma (such as death or divorce)
8.   being economically, culturally, or educationally disadvantaged
9.   coming from a family with a history of dropouts
10.   low intelligence scores
11.   low self-concept and social maturity
12.   feelings of alienation certain types of handicaps and limiting conditions (Tindall, 1988 as cited in Naylor, 1989)

All of the students in the study group, except for Katherine, were considered economically disadvantaged as defined by the criteria used to provide free/reduced lunches to students. Their homes were observed to be located in the poorest sections of the county; they were eligible for free/reduced lunches; and their custodial parents had lower paying jobs. Another factor for some of the students which may have contributed to some students' economic disadvantage was being raised in a single parent homes. In the research it was noted that the students raised by single parent mothers frequently had minimal no contact and financial support from their fathers.

Eight students in the study group were severely academically disadvantaged. These students entered the vocational school with QPAs far below average and they exhibited poor reading comprehension and math aptitudes in the classroom. Other factors which may have placed the students in one or more category of disadvantage status or at-risk were less easily determined or measured aspects of the students' lives. For example, the students describe parental substance abuses, low expectations from parents, and other family traumas. Some students exhibited chronic absenteeism which was often associated with their poor parental support for them to attend school. Some of this information was made available to the Primary Investigator in conversations with the students during the rides home with the students' home

after the interviews. However, much of the supplemental information about the students' lives was gleaned during student-teacher interactions that continued during the school year.

Noted previously, Meredith obtained the highest average score in the five areas of student engagement. (.97) Meredith's high score appeared to indicate her high level of consistency in the five qualities of engagement. She expressed strong career objectives and chose a vocational education to support them. The student expressed her career choice in the following:

> Well, I feel that Vo-Tech, a vocational education is like way better than high school, 'cause you get to like do your classes and then get to learn what you're going to do…and get a job here… (Student 3/S Interview 1, p. 4)

In contrast, Jackie, who score was the lowest (.36) in the five qualities of engagement, received learning support; was academically disadvantaged; was eligible for free/reduced lunch; and lived in a single parent home. Jackie's level of engagement may have been affected by her educational and socioeconomic background. Her first interview provided credence to the supposition that Jackie's background affected her level of engagement. Jackie had minimal parental support to attend school for example. She did not express strong reasons for entering the vocational school or the Health Assistant program. During the interview, Jackie identified Cosmetology as her first choice of vocational program. Jackie expressed her lack of interest and ambivalence to the Health Assistant program she was placed in:

> Cause I seen like my sister…and my sister in law and my cousin and my best friend all know how to do hair. 'Cause that's what they've always done and….and that's what I wanted to do. But then my mom, my mom's a certified nurse's aide, and my sister, my other sister-in-law is an RN and she makes even more money… (Student 2/S Interview 1, p. 3)

Jackie entered the vocational school with a 1.57 QPA. When asked for details about why she came to the vocational school she provided the following answer:

Do you think this will help you from dropping out?

Yeah, my mom, she dropped out whenever she was 16. And my, I think my oldest brother graduated…my mid-age brother graduated and my mid-age brother went to the Navy afterwards. And he did something with his life. And my oldest brother has a really good job now, but he really didn't want to do anything after he got out of school. And none of my family went to college so…I figured I could be something here instead of just dropping out. (Student 2/S Interview 1, p. 4)

Other comparisons of the data in Student Interview 1 brought out conflictions about the students' levels of engagement. For example, the student groups' 'sense of connectedness' score was (.89). Their 'Sense of connectedness' appeared to develop from three potentially positive areas in the students' lives. First, the students offered numerous accounts of family members or friends who attended a vocational school and had careers in the health occupations. Second, the students often envisioned vocational education as more interesting than previous experiences. Third, the students expressed strong career and employment interests which were complimentary to the vocational program they had selected.

The students' scores for the other 'qualities of engagement' (Initiative-taking behaviors, Attention to work, Positive interpersonal skills, and Self-evaluation skills) were above the median (.60 to .66) And in the subsections of the questions, the students expressed strong responses in 'Attention to details' (.36) and in the 'Students' evaluation for levels of interest and motivation' (.35). However, these responses were sharply contradicted by the students' low scores in 'Describes self as persistent' (.19) and 'Seeks out help' (.21). The reason for these inconsistencies was not clear in the data or the review of the students' permanent records. However, the students were observed in the classroom with strong interests in some aspects of the vocational program, especially the hands-on lab components. But many of the students appeared and stated that they were less interested in the completions of reading and writing assignments associated with the labs. They had difficulty staying on-task with these assignments

and difficulty asking for assistance when they could not complete the work. These contradictions may have been attributed to the fact that the students had some histories of failures and therefore did not seek out support or describe themselves as persistent.

A less positive view of the inconsistencies in this data pointed again to these adolescents as 'magical thinkers'. As 'magical thinkers' the students developed unrealistic or 'magical' thoughts about what vocational programs entailed. Their unrealistic views of the vocational curriculum may have also led to high responses in 'interest and motivation'. Magical thinking by adolescents may also account for their high responses in 'attention to details'.

The students' high scores for 'Attention to details' was suppose to be indicative of the students' sense of what was involved in their career objectives. Instead, this score appeared to also appeared to develop from the unrealistic and 'magical thinking' the students expressed frequently about the careers they chose. For example, some of the students provided career goals of becoming pediatricians or other types of physicians. However, at the time of the first interview, none of the students in the study group had academic records near the levels of academic achievement to enable them to pursue this goal. Andrea, who appeared very articulate in her interview, but was academically a disadvantaged student with a history of absenteeism aptly exhibited 'Magical thinking' in her interview:

> I pretty much like, I'm pretty much more ready to come to school…and then it's like ah man, I don't want to go to school today….Well, I got to go to school…I'm going to be seventeen, I need to wake upand mature… (Student 4/J Interview 1, p. 8)

The lowest scores for the students in Student Interview 1 were in the responses for 'Positive interpersonal skills' (.61) and 'Self evaluation skills (.60) qualities of engagement. There were three subsections for 'Positive interpersonal skills'; (1) 'Descriptions of relationships with teachers/peers'; (2) 'Perception of teacher's relationship to the student'; and (3) 'How

teacher/student relationship affects work'. The students' 'Description of relationships with teachers/peers (.19) had the lowest scores in the subsections. In 'Description of relationships with teachers/peers' the lowest scoring students expressed histories of poor relationships with teachers and peers. Subsequently, the subsections 'Perception of teacher relationship to the student' (.21) and 'how the 'Teacher/student relationship affects students' work' (.20) were also noted to be low. All of the students with the low scores for the questions about 'Positive interpersonal skills' had histories of behavioral problems with teachers and peers or other social issues. This particular result was not unexpected.

In Student Interview 1 many students identified how their relationships with their teachers negatively affected their learning. Andrea described how poor relationships with teachers affected her.

> Like they (teachers) were never in the classroom and never cared what we did. It was last, like my last couple of years at ***** (school). The teachers pretty much gave up…like pretty much on your own…(Student 5/J Interview 1, p. 7)

Students like Andrea were able to identify deficiencies in their interpersonal skills and looked for a place where they could address changes in themselves.

> I just like…this school is like…I really like this school it's like, me, myself…I would never go back to my home school. Not only just 'cause I don't like the teachers; It's just like…it feels to me like I'm learning a lot more here that I was there…And this is actually where I need to be and want to be…" (Student 4/J Interview 1, p. 10)

Jackie, Susan, Annette, and Casey also scored low on in the subsection 'Description of relationships with teachers and peers'. These students expressed strong responses about how their relationships with teachers were important and how the student-teacher relationships affect their work. However, each student had a unique story behind their responses to the question. Jackie believed the teachers didn't want her in their classes. She often slept in class without

doing her work. When she approached teachers she felt that they refused to help her. Jackie had mentioned no major problems with her peers. Susan, who was EMR and received learning support, did not mention any positive interactions with her former teachers in her responses. Annette felt her teachers didn't "help her as much as I needed". (Student Interview 1 13/S, p. 2) Annette also mentioned very negative interpersonal relationships with some former students. She felt strongly enough to attend Cyber School in ninth grade. Casey readily admitted to altercations with her former students and teachers, "I didn't like the teacher…I didn't like the school…" (Student Interview 1 14/S, p. 2)

The students' responses were also low for 'Self-evaluation skills' (.60). The two subsection included 'Students' evaluation for levels of interest and motivation' (.35) and 'Response to hard/boring assignment' (.25). In 'Self-evaluation skills' the students were asked to reflect on their levels of interest in the new vocational program. Five students, Jennifer, Patty, Sarah, Annette, and Marilyn, scored low in both of the subsections. (Jennifer had also scored a low average for all five question of student engagement. Her levels of interest and motivation were described earlier.) Patty also had a low average for the five questions of engagement. Her short time in the Health Assistant program appeared to reflect her continued lack of interest in the vocational program or the vocational school after she was accepted.

Sarah's low scores for 'Self-evaluation skills' may have occurred partly because of her EMR status and her difficultly in assuming a more proactive role in her educational choices when she first entered the program. Sarah's overall average for the five questions of student engagement in the first interview also seems to reflect her disability.

Annette, however, had higher scores for the two of the other qualities of student engagement. 'Attention to work', and 'Initiative taking'. Annette saw herself as able to pay

close attention and also be an independent learner which was important for success in vocational classroom.

Marilyn provided a different response than the others. She scored low in the same areas as Jennifer, Patty and Sarah. However, Marilyn scored (1.00) in 'Positive interpersonal skills with prior experiences'. She spoke favorably about her relationships with her teachers and peers, and how her relationships with her teachers affected her work. Marilyn scored very low in the 'Students' evaluation for levels of interest and motivation' and 'Response to hard/boring assignments'. These low scores were supported by observations of Marilyn in class sleeping and not completing her written assignments. Marilyn's responses may have indicated that even when students believe that they have strong teacher and peer relationships, these relationships may not in themselves be enough to motivate a student in the classroom. The question that developed from this data focus on students with continued poor relationships with teachers. If student-teacher relationships have been identified as a strong indicator of student success, what happens to the students who do not respond positively to these relationships and continue to display lack of interest and difficulty responding favorably to a hard or boring assignment?

Meredith, Jean, Kathy, and Christine scored high averages for 'Self evaluation skills'. Meredith's, Kathy's, and Jean's scores were evenly divided between their levels of interest and motivation and their responses to hard/boring assignments. The balance between the students' levels of interest and motivation their attitudes towards hard/boring assignments would enable these students to persevere in hard, technical work because of their high levels of interest in a health career. The students were observed maintaining their levels of interest and motivation when the work was hard and technical. Christine's slightly lower response to hard/boring

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assignments caused her to waver in the highly technical curriculum even though she had the interest and motivation.

3.1.5.2 Subcategories

As noted earlier, the identification of subcategories in Student Interview 1 was an attempt to further break down the students' responses to the research questions. The goal was to provide a quantitative perspective of the students' responses with the hope that the created data from the students' responses could be compared within each question and across the questions from Student Interview 1 (See Appendix A). During the interviews, the students often elaborated on the questions and included other details about lives at home or in school. The subcategories were documented to accentuate areas of consistency and confliction and to provide added dimension and validity to the students' responses to the question about the qualities of student engagement. The subcategories were then compared or triangulated with the other data obtained in the Student Interview 1, the students' permanent records, and the Primary Investigator's anecdotal notes.

In the question 'Attention to work' (sections: 'Attention to details' and 'Concentrates easily') (.69) of the students expressed high levels of 'minds wandering' and only (.13) stated that they concentrated better in group activities. Half of the students (.50) found concentration to be more difficult with written assignments. In the question 'Initiative-taking behaviors': (sections: 'Finishing project', 'Seeks out help', and 'Describes self as persistent') the students' responses were supportive of their responses to the question 'Attention to work'. For example, many of the students were not willing to persist with hard subjects (.75) and the students often identified academic work as difficult. However, it was observed that almost half (.44) of the students preferred to work at their own pace. And half (.50) stated they would request their teachers' assistance for work. The unwillingness of the students to persist with hard subjects did

not appear to be an advantageous response for them when only half of the students sought out the teacher's assistance for their work.

In the question 'Sense of connectedness with prior experiences' (sections: 'Personal experiences for choosing vocational school', 'See vocational school more interesting', and 'Involvement in planning vocational instruction') many of the students expressed strong health career goals. This question received the highest response (.69) of all of the five questions about engagement. The students chose hands-on learning as their preferred method of instruction (.63). The students' higher scores for this question may have substantiated how incoming vocational students have the abilities to value their education as interesting or uninteresting.

The students were able to identify their strongest learning styles. The students were also able to connect specific careers, for example health careers in this study, with their strongest learning styles. It should also be noted that half of the students in the study entered the school because of knowing someone in the school or the vocational program they selected. Knowing someone in the health field may have been an adequate measure of the students' initial interests in a vocational program. However, the students' levels of interest in the Health Assistant program did not always lead to later observations of the students' success in the vocational programs during the school year.

The next question 'Positive interpersonal skills' (sections: 'Relationships with teachers and peers', 'Perception of teacher relationship to the student', and 'How teacher/student relationship affects students' work') appeared a difficult question for the students. The students were divided almost evenly about whether they had positive or negative relationships with former teachers. If the study group was a representation of other vocational school students the interpretation could be made that half of the vocational students have histories of negative

relationships with teachers. A future question would be to determine if indeed half of the total vocational student population has had negative relationships with former teachers? And if half of the students in vocational education had negative relationships with former teachers this information could account for the poor academic progress noted for many students who enter vocational schools. The answer may also account for why some of the students in the study did not respond positively to the learning environment in the vocational program even where there were more student-teacher interactions.

Another aspect of teacher-student relationships dealt with the perceptions of the teachers by the students. In the study, (.31) of the students indicated that they perceived their teachers as 'distant' in the past. The students' histories of perceived distant relationships with teachers may have further affected them as incoming vocational students at a time when the development of closer relationships with teachers was very important.

Many of the students in their interviews identified significant problems with their peer relationships. More students expressed negative (.38) than positive (.19) previous peer relationships. The vocational students wrestled with behavioral issues, especially common since they were adolescents. They faced the struggles adolescents face in their social and emotional development. The low number positive peer relationship expressed by the students was not unexpected. The students' interpersonal problems with their peers were often indicated by the students as important factors in their decisions to change schools. Examples of problems the students identified included bullies, clicks, and even verbal and physical assaults.

Another subcategory in 'Positive interpersonal skills' was the students' identification of an 'explanatory' quality in the vocational teachers. Many of the students used the word 'explain' in their descriptions of explanatory teachers. Explanatory teachers were viewed as ones who

reviewed information, sought out the students' responses, and interacted with the students throughout the lessons. Most importantly, the explanatory teachers frequently assess the students' understanding and would continue to work out a point until the students did understand the information.

The explanatory style of vocational teachers appeared to contradict what the students were used to seeing in their former teachers. The students described teachers who were not explanatory as rushing the students; not fully answering to the students' questions to the point of their understanding; not aiding the students during difficult assignments; and not approachable by the students. Most importantly, the teachers who were not explanatory were described by the students as never wrong; they appeared powerful in the student' eyes; and some put the students down if they asked questions or were not listening in class.

The students' responses to the question on 'Self-evaluation skills'(sections: 'Students' evaluation for level of interest and motivation' and 'Responses to hard/boring assignment') provided support and disagreement with the analysis of the question 'Attention to work': (sections: 'Attention to details' and 'Concentrates easily') For example, the students seemed to express realistic levels of interest and motivation (.56) which were also reflected in their permanent records. Their responses were not questionably high which might have indicated bias on the students' part to please the Primary Investigator.   The students' slightly less positive responses to a hard/boring assignment (.50) provided validity to the previous responses about interest and motivation.

Because of the 'technical' nature of the vocational programs, the importance of concentration has been established as paramount to successful learning in vocational schools. Vocational programs have been known for their hands-on skills. However, the vocational

curricula had also included rigorous technical and academic knowledge which the student must successfully demonstrate and use to interpret hands-on skills. The highly technical curricula had been considered difficult for students to master. As indicated in the data, (.70) students stated that their minds wander easily. In addition, (.50) students had a negative response to hard/boring assignments and also difficulty concentrating on more difficult written assignments. Half of the students wanted to work at their own pace (.50) which was a positive precondition of the independent learning environment found in vocational programs. However, half of the students (.50) expressed lack of persistence with difficult assignments. A similar number of students (.50) would not request help or may continue to work on their own, even if they needed the support. In technical, hands-on training, it was identified as essential that the students were willing to share their competency level with the instructor to promote their learning.

3.1.5.3 Common threads in the data

'Common threads' of information were identified across the students' interviews in Student Interview 1. Analysis of the 'common threads' from within the dialogue of the interviews provided different views of the students. The 'common threads' seemed to offer more validity to the analyses because they often overlapped with the subcategories established from the questions. Noted earlier, the subcategories developed from the students' elaborations about subjects beyond the research questions. In the common threads, the students' interviews were analyzed within the dialogues for similarities in content, not necessarily the same responses to questions, as with the subcategories.

Five students, Jackie, Annette, Katherine, Andrea, and Tara, indicated they had high absenteeism/tardiness during their previous school year. A review of these five students' averages for the five qualities of engagement in Student Interview 1 provided mixed information.

Jackie averaged (.38) for the 'five qualities of engagement'. Three students, Annette, Katherine, and Andrea scored in the mid-range (.57-.61), and Tara scored high (.82). The students' previous records of absenteeism were also compared to their current absenteeism in the vocational school. (It was necessary here to consider the absentee data for the students beyond the time of Student Interview 1) Jackie continued her very high absenteeism. Annette's and Katherine's absenteeism declined. Andrea's and Tara's increased during the school year. Four of these students, Jackie, Annette, Katherine, and Andrea, also scored low in 'Positive interpersonal skills' which considered the students' relationships with teachers and peers. For Jackie, Annette, Katherine, and Andrea their previous high absenteeism may have been either a product of the poor relationships with teachers and peers, or their poor relationships were the product of the high absenteeism. Annette's and Katherine's decreased absenteeism in the vocational school may have been attributed to their improved relationships with their teachers and peers. Annette and Katherine were observed appearing more comfortable with their peers and they stated they had developed positive relationships with their vocational teacher (Primary Investigator).

Fifteen students described themselves as liking 'hands-on learning' or 'lab assignments'. When the students were asked to describe the types of learners they were eleven indicated they preferred moving around. It was not surprising most of the students were all able to describe how they learned best. However, in the 'Attention to work', which included 'Attention to details' and 'Concentrates easily' four of the students scored below (.37) and four more scored (.50). The low scores in these areas indicated that the students do not like to be seating in chairs and/or having to concentrate their on work. The students appeared to view 'hands-on learning' as learning they for which they did not have to concentrate on or pay close attention to the details

of. These results may have indicated that the students did not understand what was involved in 'hands-on' learning.

Eight students expressed previous good relationships with teachers and seven (.44) students expressed previous good relationships with other students. Students who did not express good relationships with teachers sometimes perceived the teachers as aloof or unjust. The following are examples of how the students perceived teachers when there were poor teacher-student relationships:

> No, it was just the way he treated everyone in the class, you know. He was always right. He was older than every-body…he was right. An then if one person in class, if he had a (inaudible) clown…and this one person you know said something to him and he would go 'whatever, we're not …I ain't going to teach you how to do this…your just going to just do it'…just because one person was nuts. (Student Interview 1, 1/S, p. 7)

> She told me I didn't have any more work to make up, but I couldn't make up any work. And she didn't even try showing me how to do the work, she just told me I couldn't pass my final." "And normally if one of my teachers gets smart and I just get smart right back. And they didn't want me in their classes. They told me, even if I failed they would pass me anyway, 'cause they didn't want me there anymore. (Student Interview 1, pp. 3-4)

The students provided numerous reasons for leaving their home school. The most common reason was because their home school had a uniform policy. A striking aspect of the reasons the students left their home schools were the other answers. The expected answers from the students such as seeking a vocational education, wanting a job, or learning new skills were not mentioned as often as other non-educational reasons. Non-educational reasons for the students to change their home schools included teachers at the other schools, cliques at the other schools, and another option besides dropping out of school. The students' levels of engagement for a vocational education would not scored high if the students' level of engagement were based on the data from this common thread. There was a clear indication from this common thread that

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some of the students, and not necessarily only guidance counselors, chose vocational education as an alternative education to home school issues, rather than a means to gain a technical education.

However, in the next common thread which dealt with the students' reasons why they chose a vocational education a different perspective of the students' choices' was revealed. Half of the students indicated that they were interested in future employment. Four students had very specific career goals identified before they entered the vocational school. The other responses from the students were less focused on career training and employment and often overlapped to some degree with their common thread reasons for why they left their home school. These responses included; to try something new, working with people/helping others, better education than home school, and better peer relationships.

Three-fourths of the students did receive their first choice placement. The first choice placement was from the students' perspectives and validated in their permanent records. The placement of the students' in their selected 'first choice' vocational program appeared to be an important element for the students in their transition from their home school. The students appeared willing to "try something new" within the framework of a selected vocational program. Three students, Betty, Jackie, and Patty selected Cosmetology as their first choice of vocational programs. Jackie and Patty, who had poor grades and histories of behavioral problems, had a difficult time adjusting to the new school. It was also apparent from observations in the classroom that their lack of interest in the Health Assistant program was an additional impediment for them when they had to complete labs or written assignments. Betty, who entered with better grades and few behavioral issues, indicated she would keep an open mind about the

Health Assistant program in the first nine weeks. She eventually rescinded a request for shop change and was observed doing well in the program.

Three-fourths of the students indicated they preferred the independent learning environment offered in vocational schools. This was a strong common thread across the students' interviews. Some of the students stated liked group learning work along with the independent learning. The responsibility for their own time and the management of their own work load appeared to appeal to the students. The few students who did not prefer the independent learning environment also received learning support. This result was not surprising. Students who receive learning support may have been more comfortable with concrete directions during classes from their teachers.

The last common thread pertained to the students' career goals. Throughout the interviews most of the students expressed strong career goals, even if they were not focused on a health career. Jackie wanted to be a cosmetologist. Patty wanted to be a dancer. In total, eleven of the study group students planned to attend nursing school or college. Nine of the students mentioned a nursing career. The students stated they realized their goals of nursing careers would require additional postsecondary education by them in either nursing school or college. Two of the students expressed specific goals to attend college or some other postsecondary school in a non nursing area. Only one student specifically mentioned employment after high school. (The students' career goals required most of them to bring up mediocre or low academic grades. It would be interesting to follow the students through their three years at the vocational school to assess how many met their goals.) The following figures show the common threads of responses for the students in Student Interview 1. In Figure 3.7 the responses the students gave

for their grades when they entered the vocational school are provided. However, the grades from

the students' permanent records appeared much lower.
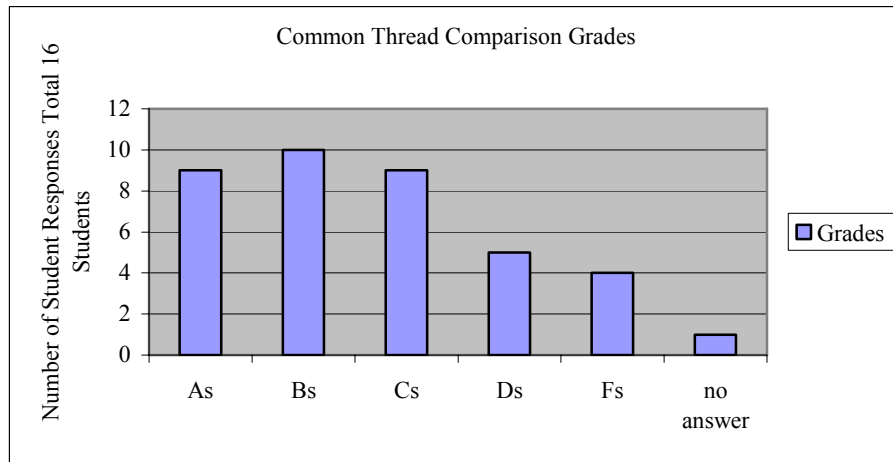
Figure 3-7 Common Thread Comparison Grades

In Figure 3.8 above the students described whether their relationship with their teachers

affected their work. A small difference was noted between the students who stated their

relationships with their teachers affected their work and those who did not. The accuracy of the

responses was hindered by the number of 'no responses' in this common thread. When these

results were compared to the students' relationships with their teachers and peers it appeared that

a similar pattern was overlapped. A similar number of students who stated their relationships

with their teachers affected their work also described good relationships with their teachers. A

similar number of students who had did not state that their relationships with their teachers

affected their work also expressed fair or poor relationships with their teachers as noted in Figure

3.8

Common Thread Comparison
Teacher Relationship Affects Work
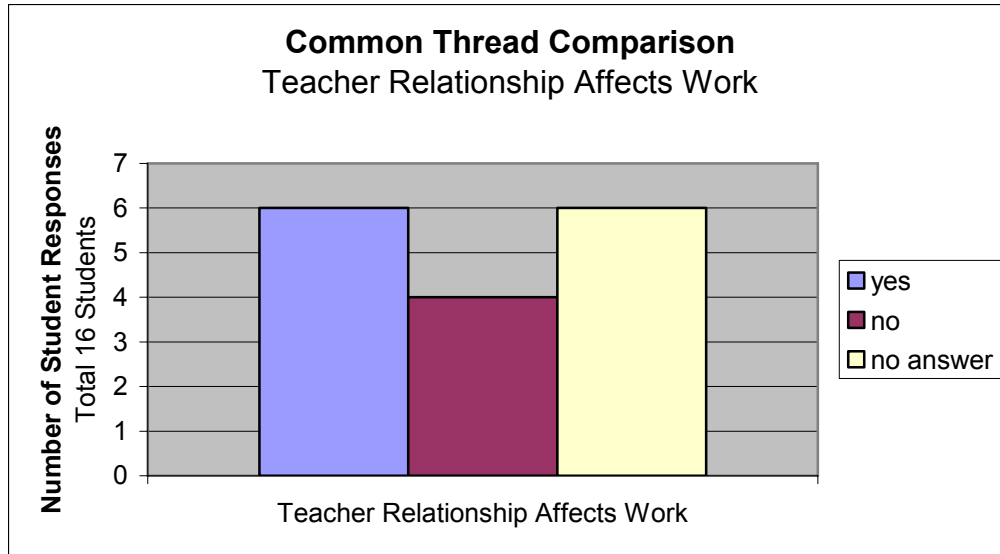
Figure 3-8 Common Thread Comparison: Teacher Relationship Affects Work

The majority of the students identified the explanatory style of teaching as a positive method of instruction for them as noted in Figure 3.9.   The students often referred to this quality in teachers who they succeeded with. The explanatory style of teaching was also evident in the research and it was especially noted with vocational instructors.
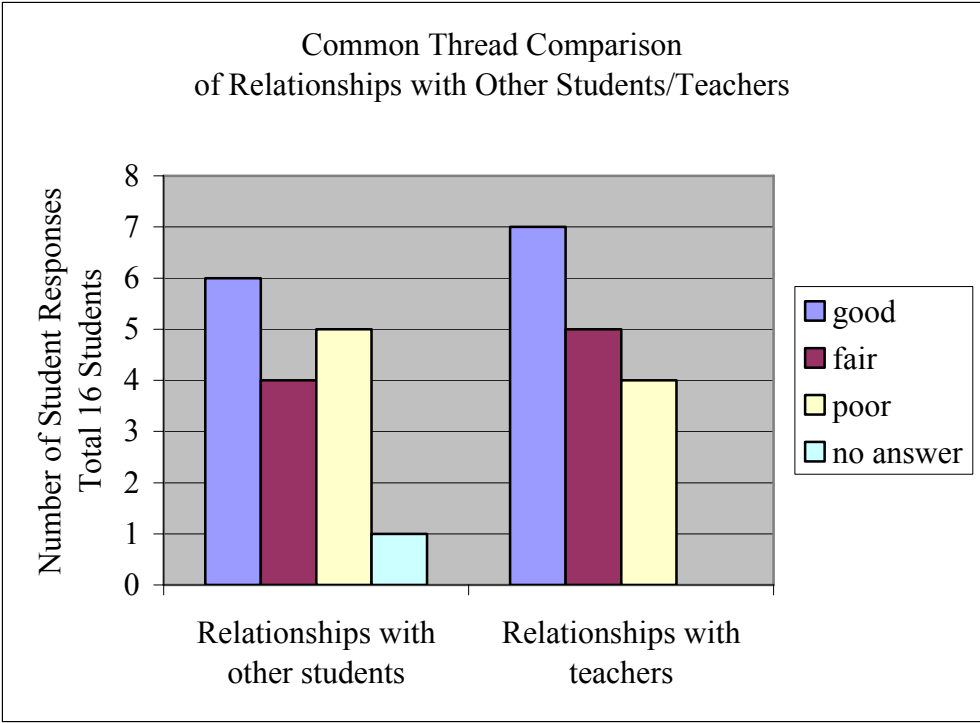
Figure 3-9 Common Thread Comparison of Relationships with Other Student/Teachers
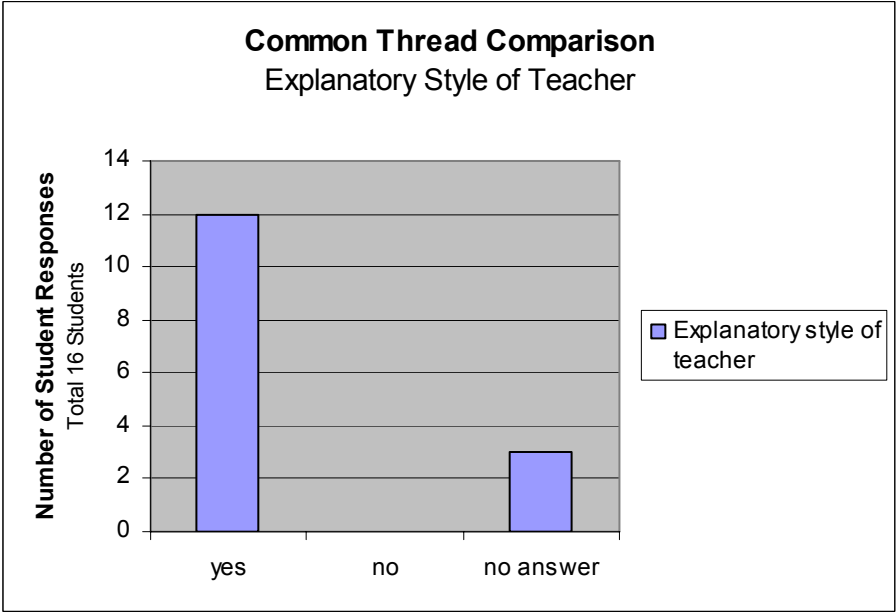
Figure 3-10 Common Thread Comparison: Explanatory Style of Teacher

In Figure 3.11 the responses the students gave for their preferred type of learning were identified. Most of the students identified kinetic learning and also described hands-on activities. The research provided validation for the students' responses. Many students who select vocational education prefer to be out of their seats during class and find lab activities with interactive materials to hold their attention.
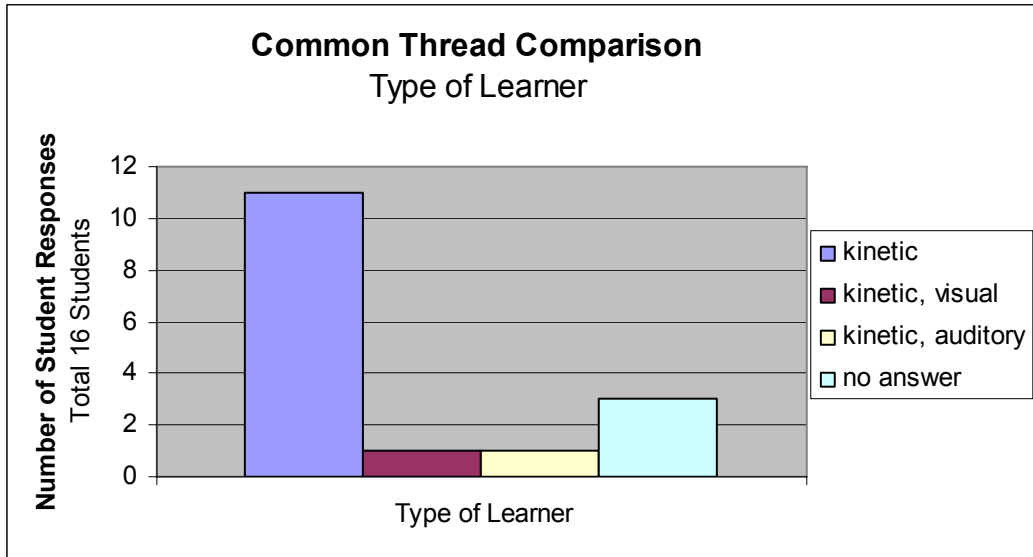
Figure 3-11 Common Thread Comparison: Type of Learner

Figure 3.12 provides a comparison of the common threads absenteeism/tardiness with major discipline referral from the data obtained from Student Interview 1. The appeared a relationship between students with high absenteeism and tardiness and students with major discipline referrals. This data was not unexpected. Students who are absent or tardy from classes frequently have difficulty following current lessons and may be prone to discipline problems. The students may develop frustration or boredom when they are not able to participate as well as their peers in the classroom activities.
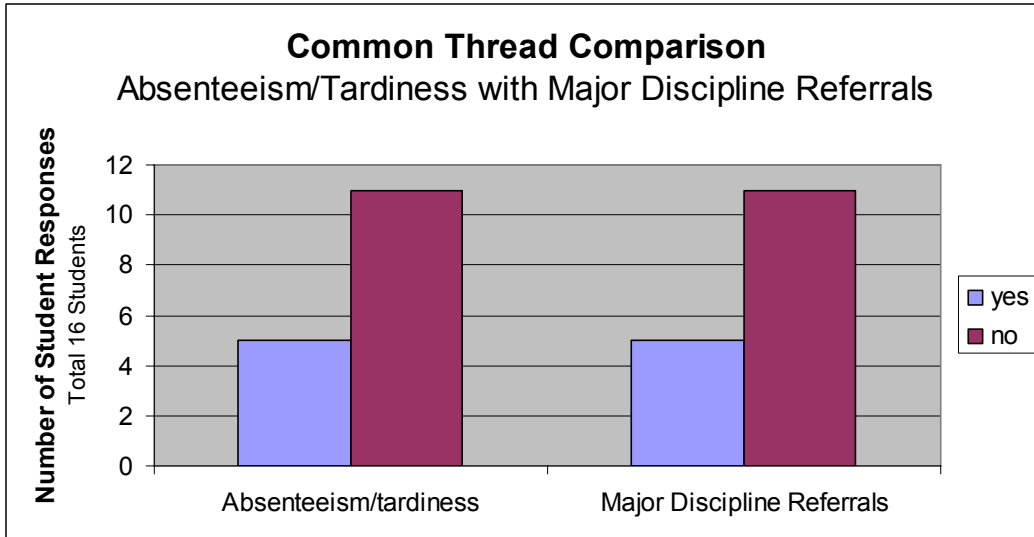
Figure 3-12 Common Thread Comparison: Absenteeism/Tardiness

Figure 3.13 the explanatory style of teachers was compared with major discipline referrals for the students.   This comparison provided a relationship between diminished discipline referrals for students and their identification of the explanatory style in their teachers. The students described in details how teachers who explained their lessons often received more of the students' attention. When students' are attentive to their lessons in many instances their major disciplinary referrals diminish.
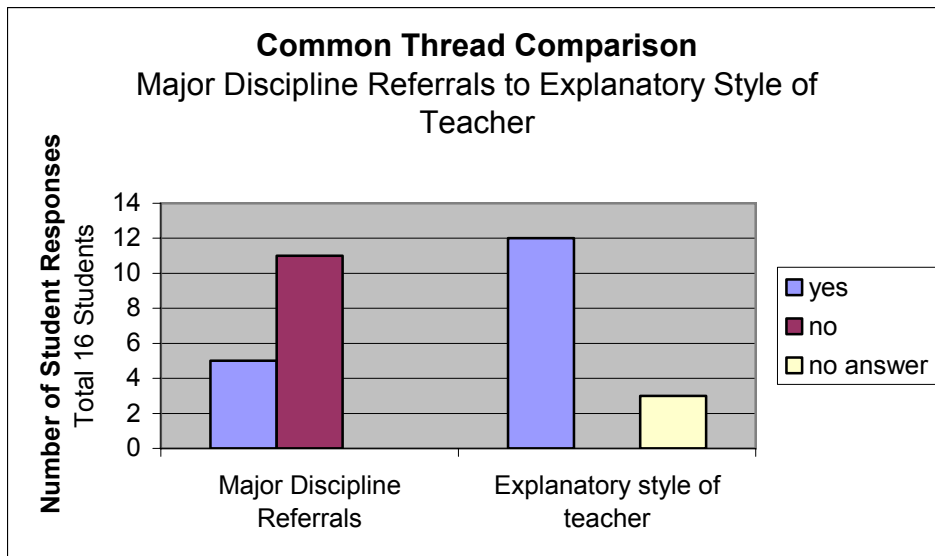
Figure 3-13 Common Threads   Comparison: Major Disciplinary Referrals to Explanatory Style Of The Teacher.

In Figure 3.14 the comparison of the common threads for hands-on learning and the students' positive responses to independent learning also showed a relationship. Most of the students expressed their preference for hands-on learning. The positive responses for independent learning by the students supported their inclination for hands-on learning. Most vocational activities in the lab or shop areas required the students to work independently with their hands to complete competencies. When the students were grouped together for lab activities there was still a significant amount of individual hands-on demonstration for the students to complete.
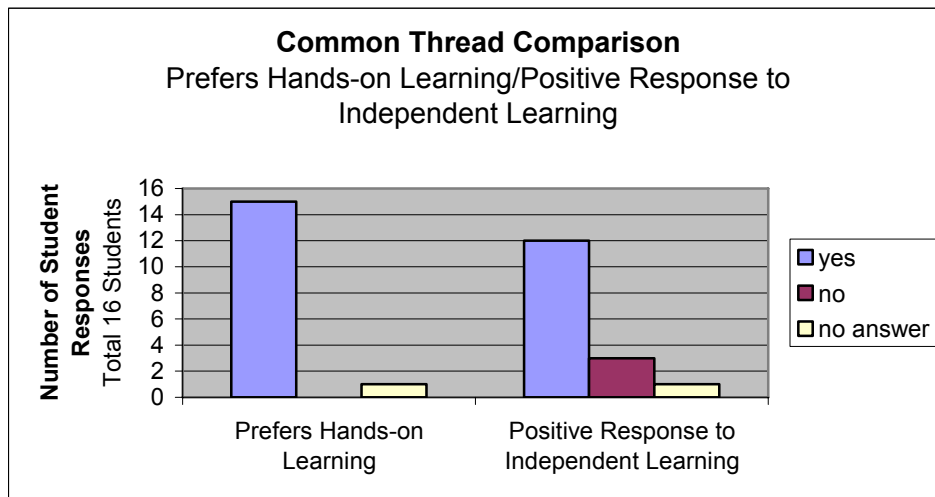
Figure 3-14 Common Thread Comparison: Prefers Hands-On Learning/Positive Response

3.1.6   Student Interviews

3.1.6.1 Student Interview 1: Emerging Themes

The data from Student Interview 1 was triangulated between four areas; (1) the common threads identified in the students' interviews; (2) the students' permanent records; and, (3) the Primary Investigator's anecdotal notes. Themes were exposed from the triangulation of the data. In the first theme it was identified that many students with high absenteeism/tardiness had fair or poor teacher relationships. The second theme it was exposed that many students with a high

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number major discipline referrals had fair or poor teacher relationships. The triangulation of the data did not provide new information about the students' behaviors <u>and</u> teacher and peer relationships, or students' absenteeism/tardiness <u>and</u> teacher and peer relationships. However, the triangulation of the data substantiated previous conclusions identified in the research and currently in the first two themes. This information appeared to pertain to incoming vocational students improved relationships with teachers if the cross references of information about students' absenteeism/tardiness and their major discipline referrals were individualized for the students' assessments and not used as behavioral labels for them. The third theme which emerged from the cross referencing of the students' relationships with their backgrounds and dealt with the students' academic or socio-emotional disadvantages. It emerged in the third theme that most of the students in the study group who were academically and socio-emotionally disadvantaged described their previous relationships with their teachers as 'fair' or 'poor'. It appeared that students, who were considered the most in need of additional and special attention from their teachers, described the least positive relationships with teachers.

As noted earlier, half (.50) of the students in the study selected the Health Assistant program to become employed. In the cross-reference with the students' career goals it became apparent that the students' placements in the Health Assistant program served as a conduit for many of them to meet their career goals of employment. Eleven students indicated that nursing school/college or a different postsecondary education was also their career goal. The students' permanent records were reviewed a second time to consider the students' preparedness for their aspirations of postsecondary education. Only five of the 11 students, who indicated they wished to pursue a postsecondary education, entered the vocational school with QPAs over 3.0. These students were Betty, Meredith, Annette, Katherine, and Marilyn. Betty was sure that she wanted

to go further than an entry-level health occupations position. Meredith wished to become a Medical Technician. Annette was unsure of her career goal because many of the health careers required very close contact with blood and bodily fluids. Katherine stated she was focused on attending nursing school. Marilyn identified the need for more education after high school, but she did not express much desire to further her education. She was expelled from the program before the second student interview occurred. The other six students, who also indicated that nursing school/college or a different postsecondary education as part of their career goals, entered the vocational school with QPAs of less than 2.0. Jackie, Susan, and Mathew, who entered the vocational school with noticeable academic disadvantage, did not express high expectations of continuing their education. Instead, they hoped to exit the vocational program with marketable entry-level skills such as those found in the Nursing Assistant certification program. However, Andrea, with the lowest QPA (0.00), Tara, and Casey, who also struggled in their previous schools, expressed strong goals of careers that required college or other postsecondary education. An emerging theme was the incongruent career goals observed in some vocational students when their career goals are compared to their academic disadvantages. Andrea, Tara, and Casey did not indicate they received any career counseling before attending the vocational school. The career counseling would have included the academic prerequisites the students needed to pursue their educational goals.

The strongest 'common thread' across Student Interview 1 was the 'explanatory style' of what the students described as a 'good' teacher. Twelve students (.75) identified the explanatory style of teaching as a positive quality one in the teachers whom they liked in the vocational school. Half of the students also had prior positive relationships with the teachers from their former schools to add to their descriptions of an 'explanatory style teacher'. In their definitions

of an explanatory teacher the students qualified their perceptions of an explanatory teacher with descriptive comments such as, "[H]e goes over it so….many times so it's like easier for me pay attention in his class" (Student Interview 1, p.17). Five (.31) of the students described the 'explanatory style' of teaching as new to them in the vocational school. Natalie provided a comparison of her old teachers with her new vocational teachers: "That they help us and teach us in a different way, not just sitting and writing, it gets boring after while." (Student Interview 7/S, p. 1) Christine described an 'explanatory style' teacher as someone who bridged academic reading and comprehension skills with vocational learning: "Sometimes I like, if reading something in a book and having someone explain it to you, it's easier to understand someone explaining it to you than to read it. Sometimes, it's like not real clear in a book.   When someone else does it I can understand it better…it's a little more thorough…" (Student Interview 1, p. 31). Christine scored high for 'Self-evaluation skills' which provided additional validity to her reflective comments. Meredith, who also scored high for 'Self-evaluations skills', was asked to respond to a question about what she would do with a teacher who did not explain information to the students: "I would probably tell her (teacher) she needs to answers questions and I would tell her that I didn't like that fact that she ignored the students" (Student Interview 1, p. 5).

Another aspect of the 'explanatory style of teaching' centered on the students' learning. Thirteen of the students in the study group identified themselves as kinetic learners, and 15 students preferred hands-on learning. The 'explanatory style' of teaching may be considered an essential element of hands-on learning which most kinetic learners prefer. Referring back to the subcategories identified in Student Interview 1, it was noted that many of the students indicated that their minds wandered in school (.69). Half of the students also expressed difficulty with written assignments. The students provided mixed responses when asked if they would persist

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with hard assignments. This question was asked another way to gain further validity. The second time the students were asked if they persisted with difficult assignments. Half of the students stated that they would persist with difficult assignments. However, half of the students would seek out a teacher's assistance for their work, the others would not. The students' unwillingness to persist with hard or difficult assignments combined with their absenteeism, academic disadvantages, and poor interpersonal skills with teachers, could compromise their success in vocational programs. The 'explanatory style of teaching' as theme in the study appeared to be substantiated by the students' identification of themselves as kinetic learners, who have difficulty with persistence when the work is difficult. Yet, the majority of the students would approach or be receptive to a teacher's assistance if it was provided.

In contrast to the common thread about the 'explanatory style' of teachers were the students' responses in the subcategories for the questions about 'Positive interpersonal skills". Eight (.50) students expressed negative relationships with teachers in the past, and six students expressed negative relationships with other students. These students saw the teachers as aloof as in the following examples:

> Like some teachers, like, they talk real fast and then they'll give you the work and like let you do it. And it's like you wish you could say 'Well, you're just going to fast….' And if you do that they get mad about it. But yeah, sometimes people my age, they should like at least be able to just tell them how we learn and it's easiest for us to learn. (Student Interview 1, p. 37)

> Like they were like never in the classroom and never cared what we did…They pretty much said like... '[I]f you want to do…if you want to do your work do it, if you don't then don't'. That's how they put it. (Student Interview 1, p. 35)

However when the analysis this data was cross-referenced with other common threads and triangulated with the students' permanent records, a relationship appeared between the students' behavioral issues and the students' relationships with their teachers and   For example,

five of the students who had histories of poor relationships with teachers also had histories of high absenteeism/tardiness and major discipline referrals. Two questions developed from the cross referenced data. First, did the students' absenteeism/tardiness and major discipline referrals have any bearing on the development of poor teacher relationships? Second, did the poor teacher relationships promote the absenteeism/tardiness and discipline referrals? Another question developed between the 'explanatory style teaching' and the students' absenteeism/ tardiness and discipline referrals. Was there a positive effect between explanatory style of vocational teachers for the students and the students' absenteeism or behavioral issues?

Meredith, a highly motivated student, whose scores were the highest in the student study group, provided a succinct reminder to educators of how important student-teacher relationships are to learning: She stated, "If you don't have a good relationship with your teacher, you're not going to like your courses" (Student Interview 1, p. 5).

3.1.6.2 Student Interview 2: Processes

Author's Note: Student Interview 2 occurred in the second semester of the school year. Fifteen students were interviewed. The students had received their second nine week academic and vocational grades. Interpersonal relationship had developed between the students and the Primary Investigator. The students who completed the second student interview stated more willingness to continue the study. Some of the students appeared to develop a keen interest in the Health Assistant program and the vocational school. Many of the students with histories of behavioral problems appeared more subdued and cooperative and they had less discipline referrals. Patty and Marilyn left the vocational school because of severe disciplinary problems. Laura entered the program shortly after the midterm break.

The seven questions previously identified in the methodology in Student Interview 2 were focused on what the students thought of the vocational school, the vocational program, their career objectives, and relationships with peers and other students. Attention was given to the students' perceptions of their academic progress and their interest in the work-based experiences or 'clinical' planned in a few months. The students were encouraged to elaborate whenever they wished during the interviews. The students' responses were applied to a matrix of student engagement identical to the one used for analysis of Student Interview 1. The procedures used to score the students' responses about engagement in Student Interview 1 were also used in Student Interview 2. Therefore, the students' responses received the highest value when the students' engagement appeared to be motivated internally. Student responses which did not appear to promote their internal engagement received lower scores. The rationale for using the same matrix was to maximize the cross-referencing of the responses between the interviews. Use of the same measurement tool also provided some continuity to the analyses when the interviews were compared.

Similar to Student Interview 1 The analysis also compared the students' individual responses for the seven questions. The students' responses were also analyzed between the students in Student Interview 2. The development of common threads of data occurred. Areas of strong agreement or confliction were identified from the comparisons between the students' individual responses within each question. After common threads were identified, themes emerged. The plan was to compare the common threads between the three student interviews, and consider the ramifications of the emergent themes.

3.1.6.3 Students Interview 2 Questions

For Questions 1, 4, and 5 the students were asked for their perspectives about the Health Assistant program and their favorite and least favorite things about the program and the vocational school. Question 2 was centered around work-based learning or 'clinical'. (Clinical experiences for the Health Assistant students meant that the students would leave the school two full days each week to perform hands-on health related skills for nursing home residents or hospital patients. In the hospital the students would be exposed to numerous allied health jobs when they rotated through the hospital units. The students would be able to work as Nursing Assistant Trainees in critical nursing care areas such as Same Day Surgery, Emergency Room, or the Intensive Care Unit under the direct supervision of the staff and their instructor.) The students were asked if they looked forward to this experience and what they thought it would be like. Question 3 pertained on the students' academic progress in the vocational school and any changes they may have noticed. Question 6 asked the students to describe their career objectives and whether they had changed at all since the beginning of the school year. Question 7 required the students to reflect on their past and present relationships with teachers and peers.

3.1.6.4 Student Interview 2: Findings

The students' responses were applied to the matrix of student engagement and their comparison is shown on Table 9. Meredith's, Christine's, and Katherine's grades went up or remained where they were when they started the school year. The students exhibited the strongest verbal responses of the study group participants during the second interview.

Meredith entered the school with a 2.22 QPA. During the time she attended the school her grades improved and she made honor roll. Her family relocated before the study group went out on their work-based clinical experiences. Meredith expressed strong career goals and she

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believed the work she was doing would eventually benefit her. She indicated that she could tell when she was learning, how she liked to learn, what she wanted to learn, and which type of teacher most benefited her learning. Most importantly, Meredith provided a reflection about how the change in schools affected her. She stated that she was bored in her previous school. Meredith stated her boredom was alleviated when she was able to fulfill her goal of coming to the vocational school. Meredith was also observant about the student to teacher ratio in the vocational school compared to her previous school. "I don't know, I just like…learning stuff I never knew" (Student Interview2, 3/S, p. 1). She described how she knew when she was learning and how she liked the vocational school. "I don't know, I guess I like it because we're not stuck in boring classes all day." She was forthcoming about her new teachers and the reason she came to the vocational school. "…We have a better ratio here like teachers to students is a better ratio." "Well, my favorite thing, I don't know what my favorite thing is, but there's a reason I came here" (Student Interview2, 3/S, p. 1).

Table 3-2 Comparison of Students' Responses from Student Interview 2

	Grade	What do you think of the program now?		Are you looking forward to clinical? What will it be like?		How are your academics?		What's your favorite thing about the program? The school?		What's your least favorite thing about the program? The school?		What career do you have in mind?		Do you like your peers? Your teachers?		Average
Betty	10	4	1.00	4	1.00	3	0.75	3	0.75	3	0.75	3	0.75	3	0.75	0.82
Jackie	10	2	0.50	2	0.50	2	0.50	2	0.50	2	0.50	2	0.50	2	0.50	0.50
Meridith	10	4	1.00	4	1.00	3	0.75	3	0.75	1	0.25	4	1.00	3	0.75	0.79
Patty	11	no data available		no data available		no data available		no data available		no data available		no data available		no data available		
Andrea	11	3	0.75	3	0.75	2	0.50	2	0.50	2	0.50	2	0.50	2	0.50	0.57
Jean	10	4	1.00	4	1.00	3	0.75	3	0.75	4	1.00	4	1.00	4	1.00	0.93
Natalie	10	3	0.75	4	1.00	3	0.75	3	0.75	2	0.50	4	1.00	3	0.75	0.79
Susan	11	2	0.50	2	0.50	3	0.75	3	0.75	2	0.50	2	0.50	3	0.75	0.61
Kathy	10	4	1.00	3	0.75	3	0.75	3	0.75	2	0.50	4	1.00	4	1.00	0.82
Mathew	10	3	0.75	2	0.50	2	0.50	2	0.50	1	0.25	2	0.50	2	0.50	0.50
Tara	11	3	0.75	3	0.75	1	0.25	1	0.25	2	0.50	3	0.75	3	0.75	0.57
Christine	10	4	1.00	3	0.75	4	1.00	4	1.00	3	0.75	4	1.00	4	1.00	0.93
Annette	10	3	0.75	4	1.00	4	1.00	4	1.00	2	0.50	4	1.00	4	1.00	0.89
Casey	10	4	1.00	4	1.00	4	1.00	4	1.00	3	0.75	4	1.00	4	1.00	0.96
Katherin	11	4	1.00	4	1.00	4	1.00	4	1.00	4	1.00	4	1.00	4	1.00	1.00
Marilyn	10	no data available		no data available		no data available		no data available		no data available		no data available		no data available		
Laura	10	1	0.25	2	0.50	3	0.75	3	0.75	1	0.25	4	1.00	3	0.75	0.57
Average Response			0.80		0.80		0.73		0.73		0.57		0.83		0.80	0.79

Katherine responses were scored of (1.00) in Student Interview 2. When she was asked about the program and the school she responded; "It's definitely better than being is a regular

class all day…I don't know, I enjoy it. I enjoy doing the procedures more than anything" (Student Interview 2, p. 54). Katherine entered the school with a 3.09 QPA and was able to maintain a high B average in the vocational school. She no longer mentioned dropping out of school. By the second interview, Katherine appeared settled in the vocational school and the Health Assistant program. In comparison, in the first interview Katherine scored lower for the qualities of student engagement which appeared to reflect the ambivalence she expressed about remaining in school at that time.

Katherine attributed some of her positive changes in school to "Not sitting in class after class after class all day…" (Student Interview 15J, p. 1). She believed the vocational school teachers to be better than her former school. Katherine responded to a more in-depth question on the same subject about what makes a teacher worse in her eyes:

> …they don't teach at our level. Like, totally, just being over our heads in everything that they say and when they give directions for something it's like way over our heads, and we don't know what we're doing, and it makes it irritating. (Student Interview 2, 15/J, p. 2)

Katherine's description of a poor teacher was unexpected. It seemed that because of her intelligence how her teachers taught would not have affected her. Yet, on a more social level, Katherine identified the explanatory style of the vocational teachers as easier style of teaching for her to relate to. "Just the way they actually teach class and they make things more interesting to people instead of like just sitting there and they say 'read this and then answer the questions', it's not like that" (Student Interview 2, 15/J, p. 1).

Katherine expressed clearly the difference between her former school and the vocational school. "It's definitely better than being in a regular academic class all day…I don't know, I enjoy it. I enjoy doing the procedures more than anything" (Student Interview 2, p. 54). Katherine indicated that her grades were better than the previous year. When asked the reason

for the improvement in the grades, the student responded, "Not sitting in class after class all day…" (Student Interview 2, pp. 54-55). Most importantly, the she perceived the vocational school was very different from an academic school. She relayed how interpersonal the learning environment was in a vocational school:

> I just enjoy being around different people…Like I Love being around people all the time…I don't like Being…ever just by myself or like in this little area…I like how when we go we're going to meet different People…and it's not always going to be the same people…I don't like the lines and rows that gets boring to me. I like having the change every once in a while instead of being all the same. (Student Interview 2 p.55)

Katherine also mentioned her career goals frequently in the second interview. As a junior, she was focus on her postsecondary education by the time of the second student interview.

Christine entered the school with average grades, although her verbalizations during her first interview indicated that she was likely a much brighter student than her previous grades reflected. In the short time prior to the first interview Christine had expressed her volatile nature in the vocational classroom. Her outbursts may have led to frequent conflicts with her previous teachers in the past. However, early in the school year she redirected her energies towards her vocational work. In the first interview, Christine indicated a willingness to provide extra effort for hard assignments if she believed that the hard assignments would benefit her career goals. By the second interview, Christine was one of the students who identified how much less peer pressure there was in the vocational school compared to the 'cliques' she left at her former school. She continued to state that she liked the independent learning in the vocational classroom. She was often observed managing her time well in the classroom. She was asked what her favorite thing about the vocational program was? "Probably just too like do what I want and work how I want. And I don't like sit there and do this at a certain time, I can do it…like my book work and then I can do my procedures… and then…. (Student Interview 2, p. 42)

Casey's grades were lower between her first and second interviews unlike Meredith's, Katherine's, and Christine's grades. Casey's had expressed some ambivalence toward the vocational school in the first interview. She continued to express her ambivalence towards the vocational school in her second interview. For her, the move to the vocational school had been primarily because she her poor interpersonal relationships with her teachers and her peers. At the time of the second interview she had no discipline problems at the school. Casey appeared to improve her comfort levels with other students and teachers compared to her previous school experiences. In the first interview she expressed "Sometimes I have a hard time getting along with people…so…I'm not like, I have friends but I don't really talk to them." (Student Interview 1, p. 35) In her second interview Casey was asked to elaborate on why she had so many discipline referrals in her former school. She replied, "Well…I didn't like **** (Home school) at all. And then like I was really bad…I was always in trouble, but when I came, I haven't gotten in trouble one time this year." (Student Interview 14/S, p. 1) Casey was asked again to think of a reason for her responses last year and she replied, "I don't know, I just didn't like the people there…Everybody's all snobby." (Student Interview 14/S, p. 1)

Casey also expressed a strong sense of disconnectedness with her previous school. "I was always in trouble…I always had detention…I was always late for class…I was in ISS a lot…" (Student Interview 1, p. 40) In her second interview Casey's self evaluation provided a different picture. She was asked about her academic classes compared to her previous school. Casey also improved her attendance during the first semester of the school year.

How do you like your academics compared to **?**

"I like them."

Better or…?

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"Better, a lot better. I used to like, get really bad grades in ****, but now I'm passing with like A's and B's."

Oh wow, what a difference. What do you think is the reason for that?

"I don't know, I just didn't like it. I didn't like the school."

You didn't like the school? Did you have a lot of Absenteeism there or not?

"Yeah."

You did? You have very good attendance here…I mean we're talking top notch.

"Last year I missed thirty days." (Student Interview 2, 14/S, p. 2)

There may have been a correlation between Casey's lower grades and her lack of enthusiasm for the vocational program or the school. Casey indicated that her grades were improving even though her permanent record indicated they were not.

Casey identified the explanatory style of teachers in the vocational school again in this interview. "…the teachers explain things better than **** (home school). 'Cause the teachers at **** they just give you work and tell you to do it. They wouldn't explain it" (Student Interview 14/S, p.1). When asked if she really liked the program she stated that she liked it, but not the book work. She was asked to elaborate on what the difference was for her between her home school and the vocational school. She responded, "I don't know, I just didn't like it (the former school). I didn't like the school" (Student Interview 14/S, p. 2). She admitted that she missed thirty days of school last year, but that her attendance was improved. Casey identified how much she enjoyed getting out of her seat and doing physical things. "I like that we don't have to just sit around all day…and do work. We can just get up and do stuff…do procedures" (Student Interview 14/S, p. 3). When she was asked what made the vocational school different she added,

"…that you have a change to get an education in other stuff besides like, you don't have to sit in a classroom all day and just do academic work" (Student Interview 2, 14/S, p. 3).

However, Casey shared how even in a vocational environment students can still feel constrained and begin to disengage when the interview led to questions about her answer about her least favorite thing in the vocational program. "That you have to sit there so long…it's a long time, like two hours"(Student Interview 14/S, p. 3). Along with Casey's verbal responses were her nonverbal cues of her observed ambivalence to her classroom assignments and her grades which declined in the first semester. It was planned to observe Casey closely through the final months of the study to determine whether her engagement had diminished or increased with work-based learning.

Betty maintained the grades she entered the vocational school with. As previously mentioned, Betty initially requested Cosmetology, but later asked to remain in the Health Assistant program. Her adjustment to the new school appeared positive with her peers and her teachers. Becky stated she looked forward to work-based learning or clinical. She described teachers who provided the type of instruction that was not helpful to her.

> It's like when you're trying about something, and you don't understand something they either say it the same way…because to begin with you didn't it, they don't know how to break it down for you…or…they say it the same way the don't know how it down at all.

Casey also described teachers who provided helpful instruction. "They break it down for you, then you understand it a lot better…they actually sit there do individual help instead of just saying it…" (Student Interview 2 1/S, p. 2).

Betty appeared to have settled into the vocational program by the time of her second interview. Her scored responses were high to the questions in the second interview, which appeared validated this impression. A question developed about the positive transitions of some

students to vocational schools. What occurred in the transition from an academic school to a vocational school to enable students like Becky to engage more and find a sense of purpose to their educations?

Jackie, Mathew, Tara, and Laura obtained the lower possible scores for some of the questions in Student Interview 2. For these students, nine of the lower scoring responses occurred in 'What is your least favorite thing about the program? The school?' Some examples included:

"Getting up early in the morning." (Student Interview 2, p. 8)

"That there's a lot of work."

A lot of work?

"In the books" (Student Interview 2, p.45)

"That I have to do my book work?' (Student Interview 2, p. 27)

At the time of the second interview these students had developed issues that impeded their progress in the vocational program. For example, Jackie continued to be absent numerous days from school between her first and second interviews. By the second semester Jackie's grades were low in her academic and vocational classes. She had struggled when she entered the vocational school with a 1.57 QPA and history of absenteeism.

When Jackie was asked what she currently thought of the program the student replied; "I liked it better than I did." When asked if she was looking forward to work-based learning Jackie replied; "Yeah…so I can get out of school." However, Jackie was able to reflect on her poor academic grades and offered this statement; "I don't know, I guess just like the first couple of months of school I really didn't do none of my work, until I really have to." (Student Interview 2, pp. 7-8) In her second interview she stated that she continued to like the school, especially the

vocational program. Jackie had fewer altercations with her peers and with her new teachers compared to her previous school or earlier in the present school year. Most of her disciplinary assignments to ISS were because of tardiness.

Jackie described how she liked some of her new teachers more and others less. Like other students, Jackie identified teachers that she liked as those who explained the work to her. She clarified this in "it's the way they teach and I understood more from some teachers". Jackie added that when "I couldn't understand what they were teaching when they were trying to explain it, and I couldn't like understand it and they just get frustrated…" (Student Interview 2, p. 2) Yet, something appeared different about Jackie compared to the students who scored higher for engagement. She appeared aloof and only slightly interested in the activities around her.

Mathew, appeared more settled in his classroom activities by his second interview. However, he was observed to continue his struggle with the written assignments. Ironically, when he was asked what he liked about the program he declared he like it "'Cause it's not really difficult for me." Mathew continued his 'hunt and find the answer' techniques for reading instead of reading for comprehension. (Many students have been observed reading this way when they initially come from the academic schools.) He still expressed much desire to move around and he enjoyed the labs and procedures. The 'magical thinking' described previously seemed evident again for both Jackie and Paul. Neither student exhibited or stated realistic impressions of their level of progress or their actual abilities in the vocational program.

Tara's response was scored the lowest of the students' for the question about the students' grades. Her home background continued to have strong socioeconomic disadvantages.

The social disadvantages included issues with her custody and her mother's problems. When she

was asked about her poor grades and reasons for not attending school she offered the following:

> Well, it's just basically in the last couple of months my mom move back and I got
> stuck with my mom and my grandma called the police on her…There's just a
> whole bunch of stuff going on…. (Student Interview 2, p. 38)

I asked her to elaborate about her situation and she provided the following information about her

mother.

> She's not even….I haven't heard from her in about three weeks to a month
> now…and she don't buy me any…she don't do nothing with me….my grandma
> she does it and my mom don't care that my grandma been calling the police
> ...stuff like that. (Student Interview 2, p. 38)

Tara stated that she had no behavioral issues with her previous or present teachers. She

mentioned a similar response from teachers other students in the study group had expressed

about teachers who do not explain or assist the students.

And when you didn't like a teacher in other schools, what didn't you like about those

teachers?

> "Just when they acted like they don't waste their time, go to the
> review…like….they didn't have like a question or anything…you'd be more or
> less, wait a minute, and they never come back over." (Student Interview 2, p. 40)

The attitude Tara stated towards her career goals of nursing appeared focused. But, like

her classmates, her expectations were not realistic when compared with her academic or

socioeconomic status. She, too, seemed to exhibit the same 'magical thinking' that was apparent

in other interviews with the students. Between the first and second interviews Tara was observed

slipping academically and her absenteeism had increased again. She appeared to loose some of

the qualities of engagement which she identified with when she entered the program.

The question was formed about how educators could more aptly assess students' like Jackie, Mathew, and Tara, who are not truly engaged, nor do they appear to have the academic and socioeconomic backgrounds to promote their engagement or their career goals?

Laura, who was classified as EMR and received learning support, entered the program late and provided short responses to most of the interview questions. Her level of engagement to the Health Assistant program marginal based on her scores from the interview questions.

What don't you like about the program?

"Um…You have to stay in the room for two hours and you can't lay your head down." (Student Interview 17/S, p.1)

Laura's stated career goals were not consistent with her academic abilities. During the interview it became questionable that she had received guidance counseling from her home school before she was placed in the vocational school.

What about maybe working with people, like a nurse or something….?

"Oh, I want to be a dentist!" (Student Interview 2 17/S, p.1)

Laura spoke fondly of her former teachers, and the question of her placement in the vocational school was questioned. "We'll the Vo-Tech teachers are kind of….Well the **** (Home school) teachers are nicer." Laura wished to return to her home school, but she believed she was unable to do so. (Student Interview 2 17S, p. 2)

Laura's interview was an example of a student with special needs who was placed in the vocational school without apparent academic assessments or career counseling. Her level of engagement was not high and her career interests were not compatible with her academic abilities.

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Susan, whose abilities were similar to Laura's, was also EMR. She was observed to continue a limited level of interest in the vocational program. Susan's social skills were not well-suited to the group learning environment in the vocational classroom. However, Susan had some positive responses to her placement in the Health Assistant shop. She enjoyed the procedures and was trying to work with all of her teachers to keep her academic grades up.

The difference between Laura and Susan appeared to be the reasons for their placements in the vocational school. Susan had requested to attend whereas Laura indicated that she had little input in the decision to change her school.

Jean, who entered the school with a 2.14 QPA, described the work-based learning as a challenge. "I think it's going to be a lot of fun, but it's going to be scary too. Like if you see someone die or something, that would be scary, but I think I'll learn from it." (Student Interview 2, p. 15) Jean looked forward to the vocational school in the first interview, and she continued to express enthusiasm about her placement in the vocational school.

> Like I couldn't wait for school to start. Everybody else is like 'we don't want school to start', but I couldn't wait. 'Cause I knew I would get away from that…Usually I'm cooped up in my room. (Student interview 2, p. 12)

She had observed difficulty with her attention to difficult material, but managed to improve her academic grades during the school year. However, in the vocational classroom, where the students plan their own learning more, her grades fell from and A to a C average.

Jean had much stress in her life prior to coming to the vocational school. As mentioned, she lost her father and then her stepfather suddenly. She identified the vocational school environment as conducive to her need for stress reduction. Jean explained how much more relaxed she felt in the vocational school and identified some of the stressors students face in high school. "It's more relaxing here than the other school. It's not as stressful." She was asked for a

further description and provided the following comment. "I don't know, there's more fights there like in the home schools, not as many drugs going on here as in the home school." (Student Interview 2 6/S, p. 2)

Annette also stated that she found the vocational school more relaxing than her home school. She had a 3.2 QPA when she entered the vocational school. It appeared that the socio-emotional aspects of education were the primary reasons for her choice of the vocational school after she attended Cyber School for one year. "That like it's better for like me because, in the other schools like people always talked about me and stuff … it's all the preppy people…" (Student Interview 213/S, p. 1).

Jean and Annette exemplified how adolescents can be affected by their school environment. When asked what they liked about the school they responded with information about their peer interactions. Other students in the study group also validated this concept. For example, Katherine and Christine identified peer cliques in their home schools that made it difficult for them to remain in their previous schools.

Natalie's and Kathy's scores were similar in the second interview. Natalie continued to have difficulty with the book work in the vocational classroom. The students who receive learning support, or the students who entered the school academically disadvantaged, were often observed searching for answers rather than reading. The 'hunt and find' method of reading versus reading for comprehension was not suitable for students to use to understand the technical and medical material in their Health Assistant books. Natalie continued to read this way during the first half of the school year, even with one to one support in the vocational classroom or in the learning support classroom. She continued to display problems with her behavioral that had been evident from the beginning of the school year. Natalie's scores for the qualities of

engagement were high based on the methodology used in the study to assess student engagement. However, Natalie's level of engagement was observed to be the poorest of the students in the study group when other factors were considered. The other factors considered by the Primary Investigator included Natalie's lack of attention to hard assignments; unwillingness to seek out help from the teacher; inability to work in small groups; lack of planning to incorporate her lab assignments. In her academic classes and the vocational classroom, Natalie's behavioral outbursts and dominant personality became impediments for her to receive assistance from her teachers. Natalie did not appear to develop strong interpersonal relationships with her new teachers. She maintained the 'labeled' behavior patterns that she entered the school with. Natalie's average score for engagement in the second interview declined from the average she obtained in her first interview. The methodology used to determine student engagement may not have been accurate way of to determine the qualities of engagement for students with behavioral problems, especially when the students first enter a new school environment.

Kathy floundered in her work after the first interview in which she had received higher scores for her responses to the qualities of engagement. In the second interview, Kathy stated that she continued to miss her friends from her home school. She requested a shop change to a program that did not provide physical care to people. Kathy's request led to a meeting with another vocational teacher whose program she wanted to switch to. However, she carefully considered which program she was best suited for and eventually settled with the program she was in. The opportunity for her to investigate her interests appeared to have been a positive learning experience for Kathy. "Um…it was a good decision I made to come here." She had wished to return to her home school but her friends talked her into staying. She believed she wouldn't fit if she returned. "Like…I did…but then my friends talked me into staying." "Some

of the reasons…um, I don't know, like some of my classes I don't think I would fit in there…"

Kathy admitted how much she still missed her old friends (Student Interview 2, 9/S, p. 2).

Kathy's high scores for 'Self-evaluation skills' in the first interview were somewhat validated with the previous exchange. She reflected on what she wished to do and she envisioned herself performing a particular job. Kathy was able to identify some applications of her vocational education to her future.

What do you think of the program…? … things that you've gotten out of this portion of the program?

> "Like I'll probably end up like using most of it but it's not like some schools like you go with the stuff you learn…Like all the stuff I learn, I'll probably end up using when I work like in a doctor's office, or a hospital or a nursing home." (Student Interview 2, 9/S, p. 2

Kathy clarified how new vocational students may not see the relevance of their academic courses in the scheme of their future goals. She believed that 100% of her vocational program was useful and only 50% of her academics. (Student Interview 2, 9/S, p.1) This concept appeared in other students' interviews but not as straightforwardly.

Kathy provided a clear description of how much the interests of the student might affect their level of effort in their classes.

You have A grades now,…I just looked through the grade book…Why do you think you did that?

> I don't know, when my grades went down I was kind of iffy about staying here…staying in the shop and I think that's why. And then I decided to stay and I think that's when I started…getting better…getting on track.

Does it make the work easier to know that that's what you want to do, could I say that?

> "Yeah…It's like the urge to do something when you want to do it."

Do you think college will be like that…if you want to do, then you'll go through all the hassles and the work?

"Yeah….like if I'm interested in a thing right, something I want to have do; I'll do it." (Student Interview 2, 9/S, p. 5)

3.1.6.5 Student Interview 2 and the development of common threads

The group average of 15 students for all seven questions of Student Interview 2 was (.79). Jean, Christine, and Casey scored above (.92) and Katherine scored (1.00). Four students, Betty, Natalie, Kathy, and Annette scored between (.92) and (.79). The remaining students, Jackie, Meredith, Andrea, Susan, Mathew, Tara, and Laura scored between (.50) and (.78). (Laura entered the program after the first student interview was completed. She attended Learning Support and was classified as EMR. Laura's home was located in a distressed part of the community. She lived with her parents and older siblings. Laura was eligible for free/reduced lunches.) The group average score of (.79) indicated the level of the qualities of engagement for the students.

Ten of the 15 students interviewed in Student Interview 2 scored higher averages for all of the questions in Student Interview 2 than they had in Student Interview 1. Previously noted, the lowest group average in Student Interview 1 was for the section of 'Attention to work'. The lowest group average in Student Interview 2 was for the question 'What is your least favorite thing about the program? The school?' Seven of the students' responses for this question mentioned "book work" as negative factor in the vocational program. Other responses included "sitting in a seat", "two hours in the same room", "missing old friends", and other issues about the school's reputation, and the attitudes of other students in the class. (**Author's note**: According to the research, vocational students often have difficulty with similar issues as those identified by the study group study, i.e.; sitting in classes for long periods of time; missing friends from their home schools; and classmates in the vocational programs who are disruptive.

The study groups' responses appeared to reflect the larger group of vocational students that they represented with their gamut of responses.)

The low group average for the section 'Attention to work' in Student Interview 1 seemed to be a prediction of the students' responses to their least favorite thing about the vocational school in the second interview. The responses of "book work" by seven of the students as their least favorite aspect were not surprising. (Vocational curricula are fundamentally composed of kinetic learning and lab skills with competency-based assessments of the students. However, identified earlier, vocational curricula also have large theory components. The theory components may be highly technical and are geared to specific trades or professions. Vocational students have to divide their vocational hours between the theory and lab components of the vocational programs. In general, vocational students, who may be academically disadvantaged or have difficulty staying on task, often express dismay at the extent of the reading and writing assignments required of them in the theory component of the vocational curriculum.)

The students' responses to the question 'What is your least favorite thing about the program? The school?' brought forth from the students some of the negative attitudes the students found in the community towards the vocational school. It was noted that some of the vocational students in the study continued to cope with the negative attitudes from their peers even after they had decided to attend the vocational school. Examples of negative attitudes the vocational students faced from their peers and shared during their interviews included the reputation of the vocational school as a drug school, a school for misfits, or a school for slow students as in 'slow tech'.

Other responses from the students to the question 'What is your least favorite thing about the program? The school?' included the issue of "other students". Other students were

considered a negative factor in some of the students' classes in the vocational school. The students who mentioned this issue did not elaborate about it. Their comments were that the students were disruptive and caused the class to slow down because of their behaviors. Another aspect of the 'other' students was with students who were academically further behind most of the students in the vocational classroom.

The question 'What's you favorite thing about the program? The school?' was presented to the students as a follow up to the questions in Student Interview 1 which pertained to the students' Sense of connectedness and their Self-evaluations skills. The students' responses in Student Interview 2 were (.88) for this question (.88). The students provided positive reflections about their vocational education at the mid year point. For example, some of the students were able to validate the learning styles they expressed they had in the first interview. This validation of learning styles was especially true for the hands-on, kinetic learners. What they believed to be true about how they learned before choosing a vocational education appeared to make more sense to them at the time of their second interview. The students also described other positive feelings about themselves as learners. These expressions appeared to occur because of the opportunities the students had to consider them independent learning environment of the vocational classroom. The students were allowed to determine which assignments or labs they would complete within predetermined boundaries. The students often provided comparisons between what they liked about the school and what had not liked about their previous school experiences. Many of the students expressed how much they liked the procedures or lab skills, the self-directed schedules of their written and lab assignments, and just the general "noise and commotion" of the Health Assistant vocational classroom. Many of the students who liked the

"noise and commotion" of the vocational classroom had indicated that their academic high school was boring and uninteresting to them.

Natalie provided an example of how much high school students may be aware of their learning styles. When asked if she liked the program midway into the school year she responded with the following:

> It would have to be just learning about everything…like getting to know the equipment….And learning about how you use it…the natural stuff… "I prefer the procedures…'cause it's teaching us how to it instead of writing it down on paper. (Student Interview 2, p. 22)

Natalie offered a comparison between an academic high school and the vocational school. She was asked to describe her perceptions of the vocational curriculum when she was asked what she liked about the vocational school.

> The whole school? It'd have to be that I'm learning a trade that I actually want to go into, and that I'm interested in. And it's not somebody's forcing me to do.

She was asked to compare the vocational school with her home school.

> This school is like the academics and you have….you have the academics, but you don't have as many. So that in **** (Home School) you had periods, you had like nine different classes you wouldn't have a shop. So the difference is with the shop, you have a shop experience that you're learning right now and then you have your academics. And at your home school you only have your academics, so that's what makes it like…That's what makes it harder…

Did you have an easier time there or here?

> "Here."

Why do you think that is?

> Because there's not as many classes and their not pressuring us…like we don't have to get all of the work done real fast…or, none of that. (Student Interview 2, p.22)

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Natalie identified another difference between the academic home schools and the vocational school. The slower pace of the academic classes for the vocational students appeared to offer the students an opportunity to catch up or even relearn in their academic classes. This concept was mentioned previously by other students in the group who entered the school academically disadvantaged. Yet, the slower paced academic classes may not have met the needs of the remainder of the vocational students. These students indicated that the slower, simpler academic classes cause them to become bored or even consider returning to their home schools.

The issues the students identified in Student Interview 1 were often reiterated as the reasons they liked the vocational school at the mid year point. For example, Mathew wanted to be out and moving around in the classroom. Tara found that the other students were very nice, not ignorant as she had described them in her previous school. Christine found the vocational school was not as cliquey and she could do her written and lab assignments at her discretion during the class time. Annette believed that she was getting along with her peers better and people didn't talk about her in the vocational school. Katherine expressed positive feelings about being around different people and how the vocational school had other ways of seating the students besides in rows, which she disliked. She, too, was especially please that the vocational school didn't have cliques.

A few students expressed themselves less positively in the second interview. They reiterated their comments from the first interview also. For example, Casey, who expressed much ambivalence about the vocational school in the first interview, continued to express ambivalence in the second part of the school year. When asked if she liked the program she responded, "I like it…sort of." She added later, "I like that we don't have to just like sit all

day…and do work. We can just get up and do stuff…Do procedures…" (Student Interview 2, 14/S, p. 3) When asked if she liked the procedures a lot or a little Casey responded, "A little". Casey had been in a quandary in her previous academic school; she indicated that she didn't like her high school much at all. Casey was looking for a new direction in high school when she entered the vocational school. However, her focus on a health career had not been very strong. For her, a vocational education appeared to be the lesser of two evils.

The question 'What career do you have in mind?' had the second highest student average (.83). In this question the students continued to promote the responses they made in Student Interview 1 for 'Sense of connectedness'. Previously noted in the 'Sense of connectedness', the students saw the vocational school as more interesting and they also expressed interests in the in the planning of their education. The students identified personal experiences that may have led to their choosing a health career and the vocational school. In the second interview, the students had an opportunity to re-identify their interests in specific health careers or express different ones. Nine students scored higher or continued their high levels of responses to the question 'What career do you have in mind?' when compared with the first interview questions which centered around the students' of 'Sense of connectedness' to health careers. Five students scored lower in the second interview for the two previous questions 'What career do you have in mind?' and 'Sense of connectedness'. For Betty, Jackie, and Tara the difference in scores from their responses between the two interviews was not remarkable and may be attributed to the students' continued lack of selection of a specific health career at the time of the second interview. However, Andrea and Susan, who scored remarkably lower in the second interview to the questions about their career objectives, may have had other factors contribute to the difference. By the time of the second interview Andrea, who entered the school academically disadvantaged,

was struggling with her academic and vocational work. Susan, a learning support student and classified as EMR, may not have been able to focused on a particular health career yet. What appeared in the data for students like Andrea and Susan, who were both academically disadvantaged when they entered the vocational school but for different reasons, was that their initial interests in health careers was sustained by academic achievement. Another possible conclusion was that Andrea and Susan's poor academic disadvantage may have derailed their levels of interest in a health career.

The students who had higher or unchanged scores between the first and second interviews regarding the question 'What career do you have in mind?' and quality of engagement 'Sense of connectedness' may have found that their placements in the vocational school were strong factors in their continued focus on a health career. The students may have also noted that their academics improved because of their career interests. .An emerging theme between the two interviews was the strength of the career interests the majority of the students expressed when they started the vocational school and how their career interests did not diminish but appeared to be enhanced in a vocational environment. Another question to consider was whether the students' placements in the vocational program assisted their choice of realistic career objectives?

The question 'What do you think of the program now?' was structured as an open-ended question in which the students were to compare their initial feelings when entering the vocational school to their current feelings. The analysis this question was compared to the analyses of Student Interview 1 sections of 'Attention to work' and 'Initiative-taking behaviors'. The reason for this selection of comparatives was because of the strength of student engagement found in the students' attention to their work and willingness to initiate their learning noted in the first

interview. The supposition made by the Primary Investigator was that the students' responses about the vocational program at mid-year would either support or diminish their previous 'Attention to work' and 'Initiative-taking behaviors' responses and scores. The rationale for this supposition was that the students needed to develop higher levels of attention to and initiation of their learning because of the highly technical skills and the independent learning present in the vocational program. Learning in the vocational classroom was designed to be more student-initiated and student-driven because of the independent learning and competency-based instruction. Therefore, if the students expressed positive responses about the program after they have been involved in the vocational curriculum for a significant portion of the school year, the assumption was made that the students were more likely to have adopted, or adapted to, the vocational environment.

Ten students scored higher averages to the question 'What do you think of the program now? Although it was expected that these students would have also scored high in 'Attention to work' and 'Initiative-taking behaviors' from the first interview that did not occur. Three of these ten students scored less on "Initiative-taking behaviors' but received high scores in their 'Attention to work'. One of the ten students scored lower in the 'Attention to work' area but scored higher in the 'Initiative-taking behaviors'. This deviation from the anticipated results may have occurred because some students may not have felt as strong a sense of attention to their work or to their ability to initiate learning.

A common thread in the data was between the students who indicated their appeal for the unique learning which vocational education offers and how their appeal was sustained over the school year. A theme emerged from the data about the early identification of whether students have or lack the qualities of attention to school work and a sense of internal initiative. These

qualities appeared to be important for the students when they first enter the vocational school in order for them to sustain their interests in the vocational learning environment.

The students were also asked about their academic grades in for the first two grading periods during the second interview. There were some conflictions between the information from the students and the information obtained from the students' permanent records. Eight students indicated that their grades in the vocational school were about the same as they attained in their academic school the previous year. Six students indicated that their grades had improved between the two schools. No students expressed that their grades had gone down compared to the grades they entered with at the beginning of the school year.

The data from the students' responses to the question about their grades was triangulated with the students' permanent records and anecdotal notes of student observations. The permanent records were reviewed to determine the students' actual grades from their previous school and the first semester, or the first two grading periods, at the vocational school. Eight of the students' grades had improved in the first grade period at the vocational school compared to the grades from their previous school. The students included Betty, Meredith, Andrea, Natalie, Susan, Mathew, Christine, and Casey. Five of these students, Betty, Meredith, Andrea, Natalie, and Christine, maintained their grades or were only a few percentage points off for the second nine week grading period. Susan's and Casey's grades fell significantly for the second grade period. Katherine, maintained the high QPA she had when she entered the vocational school. Two other students, Jean and Kathy continued with the same low grades they entered the school with. Mathew and Jackie, who both entered with well below average grades, continued to flounder through the first semester in the vocational school. Mathew continued his .66 QPA. Jackie's average went down from 1.57 QPA to .47 QPA and .42 QPA for the first and second

grading periods respectively. Two other students, Annette's and Laura's, grades also went down during the first two grading periods at the vocational school. Annette had been very quite when she first entered the class and had exhibited difficulty socializing. Laura was a new student receiving learning support and classified as EMR. Annette and Laura did not appear to adjust well to the group learning which occurred in the classroom. Annette had attended Cyber School and was used to working independently. Laura displayed poor social skills which may have occurred because of her mental retardation classification.

A closer review the students' responses to the question, "How are your grades?" and comparisons of their responses to the permanent records indicated some of the students had not portrayed realistic responses about their grades during the interviews. Only six of the students' responses matched their permanent records. A few students had improved their grades more than they had indicated. Two students appeared to completely disavow the actual progression of their grades in the interviews either by misstating their current grades or misstating their previous school grades. For example, Jackie stated that her grades improved, not just remained the same, which was the opposite of the information obtained from the permanent records. Andrea stated that her grades had improved since coming to the vocational school. Andrea's permanent record did contain the fact that her grades had 'improved'. Andrea's grades went from a 0.00 QPA the previous year to a .69 QPA and .62 QPA for the first two grade periods at the vocational school. Andrea neglected to indicate in the interviews that she had failed her previous year's classes and she was near failing in all of her classes at the vocational school. (Noted earlier, Andrea was capable of a much higher level of work. She often displayed in the classroom the ability to apply the higher level theory concepts to the lab skills with little effort.) The term 'magical thinking'

came to mind again especially for Jackie and Andrea who rather drastically did not present fair assessments of their grades.

Jackie, who received learning support, struggled with written assignments. She was academically disadvantaged when she entered the vocational school. Jackie also continued her high level of absenteeism in the vocational school which was noted for the prior year in her permanent record. In anecdotal notes about Jackie during the first half of the year, she was described as floundering and unable to gain momentum. She had made some friends, but was often tried to sleep in class when she did attend school. Jackie was described by the Primary Investigator at that time, as not too interested in the Health Assistant program. The dialogue in the second interview with Jackie provided a view of the student's perspective on her situation. She stated that she liked the program better than she did, and that "[t]he book work's kinda easier, but everything getting easier to me" (Student Interview 2, p. 7). Jackie was observed to spend more time on her written assignments in class and she gave the following reason. "I don't know, I guess just like the first couple months of school I didn't really do none of my work, until I really have to" (Student Interview 2, p. 8). Jackie described her least favorite thing about the school as "[g]etting up early and coming (Student Interview 2, p. 8). Jackie provided an example of how a high school student struggled with poor attendance and the consequences. She also observed trying to deal with lack of focus and inclusion which resulted from her absences in the vocational program.

Jackie perceived that the vocational written work was easier for her. She had put forth more effort in her work because she was in danger of failing her vocational program. If a student fails their vocational program they are returned to their home school at the end of the school year. Jackie's attendance was low enough that her grades were changed to 59% or lower. She

had failed all of her academic classes and her vocational program for the first two grading periods.

A similar description fit Andrea except that she had much higher grades than Jackie. This was validated by her recent report card. She completed her work well when she was interested in the assignment. However, Andrea was absent from school often. She was observed lagging behind the other students in her work when she did attend school. Andrea's poor attendance appeared to also have an effect on her interest level with the current classroom activities because she focused on her make up work instead.. In their previous years of school Jackie missed 36 days of school and Andrea missed 77 days.

Attendance was a common thread throughout the study. For students who had previous poor attendance records the change to the vocational school did not necessarily mean a reduction in days absent for them. Andrea and Jackie continued to have high absenteeism and it affected them in two ways. First, the students did not seem as connected or committed as the other students by the second interview. Second, the high absenteeism caused the students to continue their academic disadvantage status. Yet, other students in the study group with high absenteeism responded differently to their placement in the vocational school. Jean, who in the previous year missed 38 days of school, rarely missed in the vocational school. Annette, who in the previous year missed 34 days, rarely missed school except for the home bound instruction dates necessary because of her delivery. Casey, who vacillated when she entered the program and continued to vacillated the first half of the year, decreased her absenteeism from 19 days the previous year to only a few. And Katherine with 25 previous absences missed also very little. She had entered the vocational school with a 3.09 QPA but had been close to dropping out of school all together.

The previous data about students with high absenteeism and low grades provided an emergent theme between absenteeism and low grades. And the question that developed was how to assess the engagement of students with academic disadvantage and attendance problems? The identification the students' engagement levels with the students' previous school attendance appeared to provide an assessment of the students' interests in vocational education. The students who were academically disadvantage most likely because of poor attendance appeared different interventions in the assessments than the students who were academic disadvantage because of their levels of abilities. Some of the students' attendance improved, sometimes dramatically, between their previous school year and the first semester in the vocational school.

3.1.6.6 Student Interview 2 Common threads

Student Interview 2 contained 'common threads' that were identified across the students' interviews and were identified using similar to the procedures to those used to analyze Student Interview 1. The common threads identified were then cross referenced with the common threads identified in Student Interview 1. A few common threads found in Student Interview 2 were previously identified in the group analysis of the students interviews.

A previously mentioned common thread was attendance/absenteeism. The percentage of students who were not absent from school increased from (.68) to (.86) between Student Interview 1 and Student Interview 2. Disciplinary issues were also analyzed. Students who did not have discipline referrals increased from (.68) to (.93) between the first two student interviews. There appeared to be improvement in the students' attendance with the same students' decrease in disciplinary referrals.

The students' grades analysis produced mixed results between the first two student interviews. Six (.40) of the students perceived that their grades improved and eight (.53) of the

students grades remained the same as the grades they entered the vocational school with. Only one student perceived their grades as lower after a semester in the vocational school. However, as noted earlier, the students' perceptions or what they relayed about their grades in the interviews was not entirely accurate. Eight students (.53) did have an increase in their grades, and three students (.18) remained the same. The other four students' (.26) grades dropped in the first semester.

Through the triangulation of the data from the students' permanent records and the anecdotal notes it was determined that the students did not have similar reasons for their drops in their grades. Jackie's and Tara's drops in their grades were based on their poor attendance and the attendance policy that automatically lowered grades to a 59% after seven days of unexcused absences each grade period. Annette appeared to struggle with the routine of the classroom after she attended Cyber School the previous year. Her grades were lower, but only marginally, from the strong B average she had previously maintained. Laura's grades, from Learning Support teachers in her previous school may not have reflected her ability and achievement. Laura was observed unable to comprehend her reading assignments in the vocational program and had difficulty following simple instructions.

The common thread of the students' learning styles identified in the first student interview was observed again in the second student interview. Each student identified her/himself as a kinetic or hands-on learner in the second interview. Two students, Susan and Kathy were unsure of this answer when they were asked at the beginning of the school year. The students appeared to be correct in their assumptions of themselves as kinetic learners in the first interview and before much vocational classroom activities had occurred.

Seven students (.46) expressed dislike for their book work, which was not an unusual finding for a group who described themselves as kinetic learners. Yet, students' dislike of book work appeared not to be compatible with their goals of careers in the health professions. Many of the professional health careers required substantial reading and writing skills. Dislike of bookwork appeared not to be compatible with other vocational programs that required the students to read, write, and apply information form highly technical resources.

Most of the students' relationships with their teachers and peers appeared improved through the first semester in the vocational school. At the beginning of the school year, six students (.37) indicated good relationships with their peers when they entered the vocational school. By the middle of the year and the second student interview, thirteen (.86) students believed they improved their relationships with their peers. At the beginning of the school year, seven students (.43) stated they believed they had good relationships with former teachers. At the middle of the school year, ten students (.66) stated that their relationships with their current teachers had improved.

The common thread of how the teachers' relationship with the student affected the students' work was identified. This was the teacher-student interpersonal relationship and not the explanatory style of teaching the students also identified. In Student Interview 1 six students (.37) felt that their relationships with their teachers affected their work positively. In the second interview nine students (.60) believed that their relationships with their teachers affected their work positively.

The common thread of the explanatory style of the teacher did not have as significant increase between the students' responses in the first and second interviews. Twelve students (.75) strongly indicated the explanatory style of the teacher as important in the first interview.

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By the middle of the school year, nine students (.60) indicated that the explanatory style of the teacher was important. There were six 'no answer' responses from the students in the second interview. The six 'no answer' responses were further analyzed. Two variables appeared to have led to the decreased of students who identified the explanatory style of teacher as important. The students identified the type of teacher they would learn best from in the first interview. The students may have seen the explanatory style of teaching in the first weeks of their vocational education prior to their interview or in their previous teachers. These students did not repeat their responses of the explanatory style of teaching as important to them in the second interview. Or the data results were skewed because not all of the students answered the question.

The students' responses to independent learning varied little between their first two interviews. Twelve of the students (.80) indicated positive responses to independent learning in the second interview. This was a (.05) increase from the first interview. Independent learning may be considered a crucial variable in vocational education. The data for this common thread suggested that the students were able to identify the type of learning environment they preferred. Independent learning strategies have been often used by vocational teachers with kinetic lessons or hands-on skills because the students were required to practice the lessons individually to develop their levels of competency.

The career goals the students identified in the second interview were remarkably similar to the career goals provided by them in the first interview. There was no noticeable differences between the two interviews for the responses of 'nursing school' (.60) in each interview as a career goal. There were other reasons identified for why the students chose the vocational school. For example, eight students (.50) mentioned 'employment' as their reason to attend the vocational school. Other reasons also included a "better way to learn", "something new",

teachers at the other school, more education that home school, better peer relationships, and to help others. Some of the students' responses appeared attuned to adolescent social issues more than educational ones in the first interview. In the second interview, the students appeared to place more emphasis on their career goals and employment.

As previously noted, all of the students in the study group were considered economically disadvantaged except one. Economic disadvantage was based on the students' receiving free/reduced meals at school based on previously identified family income guidelines. The students' high levels of interests in employment during their high school years were an expected result because of their economic situations. The students were aware of the school's Cooperative Education program in which seniors in vocational programs may elect to obtain paid employment in their program area during their senior year. The Cooperative Education program may have also been a factor in the students' responses of 'employment' as their reason for choosing a vocational education. (Note: The Cooperative Education program is explained to ninth graders when the staff of the vocational school visits the ninth graders in their home schools as part of recruitment to the vocational school. At the time of the second interview the study group students were ready to begin the certified nursing assistant training which could enable them to obtain summer jobs with a starting salary of over $9.00 per hour.)

The analysis of the common thread of 'major discipline referrals' between the two interviews provided some expected results. In the beginning of the school year eleven of the students stated that they had discipline problems at their former schools. Major discipline referrals were the result of behaviors by the students that caused the students to be removed from their classrooms. The students, who were removed from the classroom, were assigned to In-school suspension. (ISS) or they were required to leave school and serve Out-of-school

suspensions (OSS). Four students, Jackie, Natalie, Susan, and Casey indicated in the first interview that they had serious discipline issues in their former schools. In the second interview, one student, Mathew stated he had any major discipline referrals. The other three students indicated that their behaviors in school had improved by the time of the second interview. The report from the students about their discipline referrals was true for Susan and Casey. Susan scored low for 'Self-evaluation skills' and Casey scored moderately low for 'Self-evaluation skills' in the first interview. Neither student had any major disciplinary referrals by the time of the second interview. Susan and Casey provided similar reasons for the positive change. First, students saw their relationships with their peers as more positive in the vocational school. Second, the students believed that their teachers responded differently to their poor behaviors. According to the students' stated perceptions, the teachers in the vocational school seemed to be doing more 'in house' discipline. 'In house' discipline meant the teachers handled most of the negative interactions or poor behaviors from the students in the classroom without sending the students to the principal for disciplinary action. The students identified how the teachers would talk with them when they became upset in the classroom. Third, the students believed the teachers in the vocational school were listening to them more about their problems.

However, four of the students' accounts, Natalie, Jackie, Katherine, and Mathew, of decreased discipline referrals were not validated by the vocational schools' data of discipline referrals. Jackie stated that she had no major discipline referrals when, in fact, she had three in the first semester. She received five days of ISS for truancy, class cuts, and sleeping in class. Natalie had four days of ISS for disrespect, swearing, profanity, and hitting a student. These were behaviors Jackie and Natalie identified they had displayed in their previous schools. In the second interview they did not acknowledge these behaviors had continued. Jackie's, and

Natalie's 'Self evaluation skills' responses in the first interview were reviewed. Jackie scored (.37) the lowest score in the student study group for 'Self-evaluation skills'. Natalie scored in the mid-range (.62). The low results for 'Self-evaluation skills' in the first interview for Jackie appeared to be validated by her omission of her disciplinary problems in the second interview. Natalie's self-evaluation score was not reflective as strongly for her omission of her disciplinary issues.

Katherine did not indicate that she had major discipline referrals in the first interview. However, in a circumspect way she stated that she had always been in trouble with her former teachers. Her disciplinary record for the first semester included a continuance of similar behaviors with teachers. She received four days of ISS for cutting classes and school, pass abuse, and disruption in ISS. However, Katherine's altercations occurred early in the school year. Katherine had no further disciplinary problems after mid-November of the school year.

Two of the issues Katherine had expressed about her former school appeared not to be problems for her by the time of her second interview. The first issue was her sense previously stated sense of boredom in an academic school where she sat "in class after class all day..." (Student Interview 2, 15/J, p. 1). Her previous statement was compared to comment about the vocational school where in the second interview in which she stated, "[i]t's just that it goes fast during the day, it's not something slow and drawn out" (Student Interview 2, 15/J, p. 2). The second issue was Katherine's described sense of alienation from her peers which she brought with her from her previous school. When she was asked what her favorite thing was about the vocational school she replied with the following:

> Basically, the people I know. It's not like a huge clique and then everyone else is left out you know…Basically, there's a whole bunch of cliques and you can go in them and you're one of them for sure. But you can be in multiple ones and still

talk and interact and it's not like a real stuck up preppy thing. (Student Interview 2, 15/J, p. 2)

Mathew admitted that he had major discipline referrals from his previous school in his first interview. He mentioned trouble with his peers as the major reason for his disciplinary problems. "I don't know…in my other school I got in a lot of fights with a lot of guys, I don't know…they…a lot of them don't…you have to really know me…" (Student Interview 10/S, p. 6) Mathew did not mention the extent of his disciplinary record in his second interview. He only mentioned that he had a few problems. According to the vocational school records, in the first half of the school year Mathew accrued numerous disciplinary referrals. He received three days of OSS when he threatened a teacher. Mathew received a ten day bus suspension when he fought students on the bus and disobeyed the bus driver. Mathew scored fairly low (.56) for 'Self-evaluation skills' in the first interview. (Note: Mathew did not receive a ride to work from his father for the ten day bus suspension. He walked over five miles to school and home each day. Mathew had very good attendance and did not miss any school during the bus suspension.)

At the conclusion of the second student interview, the students had completed the initial transition to the new vocational school. The students were settling into the different academic and vocational programs of the new school. Triangulation of the data from the students' permanent records and anecdotal notes with the data from the students' interviews led the following mid-school year summary.

In summary, for many of the students in the study group, the personal issues they entered the school with such as absenteeism, interpersonal problems with their teachers or peers, and academic disadvantages were diminished or not observable by the students' behavior or documented on their permanent records by mid year. The socioeconomic disadvantages the students entered with remained the same. During the next semester in the vocational school the

students would complete their certification program for nursing assistants. This part of the curriculum contained required hours of hands-on internships for the students to participate in at a local nursing home and hospital. Most of the students indicated in the second interview that they looked forward to the 'clinical' experiences. For all of the students it would be the first time they would provide physical care to another person.

3.1.6.7 Student Interview 3: Findings

(**Author's Note**: Student Interview 3 occurred during the last few days of the school year. The students completed their clinical or supervised internships at the nursing home and hospital. Most of the students completed the required classroom, lab, and clinical hours to sit for the Nursing Assistant Certification Exam. The exam would take place in the school during the following week. The exam consisted of a written portion and a skills portion. The Nursing Assistant Certification Exam was administered by the American Red Cross. The Nursing Assistant Certification program was also reviewed by the Pennsylvania Department of Education biannually. Students who passed the exam would be licensed in Pennsylvania as State-Tested Nursing Assistants. The employment rate for nursing assistants was high. Across Pennsylvania and the country a nursing shortage exists. The nursing assistants have been vital in filling in the health care gap during the nursing shortage. They can perform basic nursing care skills and free up the profession nurses in the health care facilities. The pay rate for nursing assistants has improved dramatically in the past few years. Currently, high school students who are State-Tested Nursing Assistants receive a starting salary of $9.00 to $10.00 per hour. The high school students are eligible for sign-on bonuses offered by nursing homes to address their persistent staffing shortages. The students receive a reimbursement of their exam fees ($107.00) from their

first employer. Therefore, students who are economically disadvantage can become certified without much cost to them.)

As a group, the students did not express as much interest in completing their third interview. The reasons they gave for their diminished interest in participation in the study was that they were "too busy" and did not have time after school. The interviews were subsequently scheduled during lunch breaks at clinical in May and early June. The rest of the students were interviewed at school whenever there was a convenient time. The third student interviews were shorter in length than the previous interviews. The students did not elaborate in their responses to the questions as frequently.

The new principal had inadvertently scheduled the incoming Health Assistant students for the afternoon program. This schedule was not suitable for the morning care of patients in the nursing home and hospital as part of the students' work-based, 'clinical' experiences. The principal decided to schedule clinical experiences for two full days each week instead of half days each week. The schedule change caused an unusual circumstance for the Health Assistant students who attended clinical during the study year. The students would were required to obtain their academic assignments the day before a clinical day and to turn in their assignments the day after a clinical day. Many of the students stated in their third interview that the arrangement was difficult and they could not complete their academic assignments on time. Some of the students also indicated that their academic grades went down because of the schedule change. A few students stated in their interviews that the new schedule was an encouragement for them to use their time wisely and completed their assignments promptly.

3.1.6.8 Student Interview 3: Processes

Eleven students completed the study and the third interview. Meredith and Jean had transferred to other high schools. Tara and Laura were still on the class roster but both students were absent much of the last nine weeks of school. Tara did not attend the clinical experiences. Laura attended the nursing home clinical, but she was absent for most of the hospital clinical days. The other absent students Patty and Marilyn had returned to their home schools because of disciplinary issues.

The questions in Student Interview 3 were focused on two main concepts. The first question asked what the students thought of the internships or clinical experiences at the nursing home and hospital. The next four questions sought the students' responses about the vocational program, the vocational school, the academic classes, the vocational school teachers. The last question asked the students provide a recommendation, positive or negative, about the school to incoming students. The questions for the third interview were less structured than those of the prior two interviews. The students were familiar with the Primary Investigator and they also had some idea of what the interviews entailed. It was hoped that less structure would provide more opportunity for the students to choose their areas of elaborations. Their choices for elaborations would be considered in the analysis.

The students' responses were applied to a matrix of student engagement identical to the one used for the analysis of Student Interview 1 and Student Interview 2. The procedures to score the students' responses in Student Interview 1 and Student Interview were used for Student Interview 3. Therefore, the students' responses received the highest value when the students' engagement appeared to be motivated internally by the students. Student responses which did not appear to be promoted from their internal engagement received lower scores. The rational for

using the same matrix for all three student interviews was to maximize the cross-referencing of the responses between the interviews.

Similar to the analyses of the first and second student interviews, the students' responses were analyzed across Student Interview 3. Common threads developed and they were organized for comparison to the common thread in Student Interview 1 and Student Interview 2. The next analyses compared the students' individual responses for the six questions. Areas of confliction or agreement were identified between the students. Themes emerged from the data obtained in the common threads and the areas of students' confliction or agreement. The common threads would also be compared between the three student interviews to determine if other emergent themes could be identified.

3.1.6.9 Student Interview 3: Questions

The first question asked the students about their favorite and least favorite parts of their clinical experiences. The second question asked the students about their favorite and least favorite parts of the Health Assistant program. The third question asked the students about their favorite and least favorite parts of the vocational school. The fourth question asked the students about their academics. The goal was to determine what similarities or differences the students could identify when they compared their academics at the vocational school with their previous schools. The fifth question asked the students about their teachers. This question was presented in an open-ended method to facilitate the students' responses without the Primary Investigator directing the content. Questions about the explanatory style of teaching were omitted unless the students mentioned the concept first. The goal was to determine if the students continued to identify this quality in the vocational school teachers. Also, the students were free to bring up any other issues about the teachers with the open-ended method of questioning. The final

question asked the students to provide recommendations to incoming vocational students. This question provided an opportunity for the students to add anything they believed to be important about the vocational school or the Health Assistant program to students who were entering the school or were considering changing schools.

3.1.6.10 Student Interview 3: Findings

The students' responses to the questions from Student Interview 3 were applied to the matrix for student engagement and are shown in Table 3.3. The students often identified positively toward their engagement in work-based learning or 'clinical' and towards their teachers in the vocational school.

Table 3-3 Individual Placement of Students' Responses From Student Interview 1

	Grade	Response to clinical Favorite/Least Favorite		Response to program Favorite/Least Favorite		Response to vocational school Favorite/Least Favorite		Response to academics Favorite/Least Favorite		Response to teachers Favorite/Least Favorite		Recommendations to incoming students		Average
Betty	10	4	1.00	3	0.75	4	1.00	4	1.00	4	1.00	4	1.00	0.96
Jackie	10	4	1.00	2	0.50	2	0.50	2	0.50	4	1.00	2	0.50	0.67
Meridith	10	no data available		no data available		no data available		no data available		no data available		no data available		
Patty	11	no data available		no data available		no data available		no data available		no data available		no data available		
Andrea	11	4	1.00	3	0.75	3	0.75	1	0.25	4	1.00	1	0.25	0.67
Jean	10	no data available		no data available		no data available		no data available		no data available		no data available		0.00
Natalie	10	3	0.75	4	1.00	2	0.50	3	0.75	no response		3	0.75	0.63
Susan	11	4	1.00	3	0.75	2	0.50	3	0.75	no response		no response		
Kathy	10	4	1.00	4	1.00	3	0.75	2	0.50	no response		4	1.00	0.71
Mathew	10	4	1.00	3	0.75	no response		2	0.50	3	0.75	3	0.75	0.63
Tara	11	no data available		no data available		no data available		no data available		no data available		no data available		
Christine	10	4	1.00	3	0.75	4	1.00	4	1.00	3	0.75	no response		
Annette	10	3	0.75	4	1.00	3	0.75	4	1.00	4	1.00	4	1.00	0.92
Casey	10	3	0.75	3	0.75	3	0.75	3	0.75	2	0.50	3	0.75	0.71
Katherin	11	4	1.00	4	1.00	4	1.00	4	1.00	4	1.00	4	1.00	1.00
Marilyn	10	no data available		no data available		no data available		no data available		no data available		no data available		
Laura	10	no data available		no data available		no data available		no data available		no data available		no data available		
Average Response					0.93		0.82		0.75		0.73		0.88	0.78	0.81

3.1.6.11 Comparisons of students in the sample group

Betty's average for her responses in her third interview was (.95). Her lowest response she received was (.75) to the question about her favorite and least favorite things about the vocational program. She identified that the other students in the vocational class were a concern to her. "I like the program, it's just some of the kids in the class…you know." (Student

Interview 3, p. 2)   The anecdotal notes for Betty included a positive comment about her independent work habits and ability to provide excellent care in all of her clinical assignments. She had signed up to complete the Nurse Aide Certification test before the end of the school year. As noted in her permanent record, Betty's grades improved over the second half of the school year. Most importantly, they improved the last marking period when the students were responsible for obtaining their missed academic work when they were out on clinical days.

Jackie's average for her responses in the third interview was (.66). Her responses to her favorite and least favorite things about the program, the school, and her recommendations to the incoming class averaged (.50). However, she indicated more positive responses to her clinical experiences and her teachers in the vocational school.

Andrea also received a (.66) average for her responses in the third interview. Andrea's academic responses indicated a poor level of engagement (.25). This score was supported by her failing grades during the school year. Her score for her responses to recommendations to the incoming students was (.25).

Natalie scored (.75) for her responses to the questions in the third interview. Her lowest score (.50) was for the questions about her favorite and least favorite things of the vocational school. She responded that she did not like the vocational hands-on work or the book work in the vocational program too much. Yet, she qualified her statement when she indicated that she liked learning the new things in the vocational school.

Susan's third interview provided little information. She responded to three of the six questions. In the review of Susan's third interview transcript, it was noted that she responded "I don't know" to questions about recommendations for incoming students about the vocational school, her academics and her relationships with her teachers and peers. Susan did respond to

questions about the vocational program, but she offered no elaborations. Susan identified how she felt as a student when she provided personal care to residents for the first time.

Kathy provided responses to the questions in the third interview received a (.90) score. She did not respond to the question about her relationships with her teachers and peers. Many of Kathy's responses were very similar to her previous interviews. Previously, Kathy stated she was unsure of her decision to attend the vocational school, but in her third interview she stated that she was glad that she did. No school uniforms were also identified in response to the question about her favorite things about the vocational school. Kathy responded to the question about her favorite things about the vocational program with the following comment about clinical or work-based learning. "It was interesting 'cause like I could do a procedure in class but is so much different doing it on actual people…rather than classmates." (Student Interview 3, 9/S, p. 1)

Mathew's responses were scored (.75) in the third interview and below the group average of (.81) He provided the following response to clinical: "Kind of, but not as much. It was all different stuff, kind of here, different equipment." (Student Interview 3, 10/S, p. 1) As noted earlier, Mathew stated that he would tell incoming students to pay better attention to their anatomy lectures and to listen more. He included that he had better relationships with his teachers and peers at that point in the school year. This statement was validated with the vocational school's disciplinary report. Mathew had decreased his disciplinary referrals during the school year, except ones previously identified.

Christine's average score of (.90) was above the group average also. She did not provide recommendations to incoming students because this was accidentally omitted in her interview. Christine identified how her choice of a vocational education provided her with different types of

learning. Her academics improved and she was able to prepare for her career as a nurse. She offered a comparison between her former school and the vocational school.

> Oh…academically, you don't exactly get to choose what you study, you just study whatever, academically, or like vocationally you can choose like. I'd rather go to vocational school, because I can do something I like, plus get the academics in there.

> …'Cause I'd rather be doing something I like for half the day and then something that, well I don't mind academics, but now…But before I did, so I was like, at least now it'll be split. I'll have something I like, something I don't like so it'll work better. (Student Interview 3, 12/S, pp. 2-3)

Annette's average score for her responses in the third interview was (.91) She obtained a lower score (.75) for engagement in her response to clinical. She delivered her baby during the time of the hospital clinical and did not return to school until the last week. It was previously noted that Annette indicated that she did not like the nursing home clinical. She had no comparisons to make between the hospital and nursing home experiences because of her absence during the birth of her baby. In her response to the vocational school (.75), Annette identified "better people" as her favorite thing. Annette stated that the vocational school food was the least favorite thing about the school. The interpersonal relationships with her peers were previously identified by Annette as important to her in school.

In comparison, Casey's average score (.75) her responses in Student Interview 3 were below the group's average. The issues Casey identified in her previous interviews resurfaced in her answers about the school and about the vocational program, "...I don't know, they treat people different. Some people get away with stuff" (Student Interview 3, 14/S, p. 2). Casey also mentioned in her interviews how she disliked remaining in one room for two hours. Casey's response to what she didn't like about the nursing home appeared to validate the ambivalence she expressed to her clinical experiences in this interview. In her previous interviews, Casey also

expressed ambivalence towards her career goals. She identified that she wanted a career in the lab, but her expressions were hesitant when she was asked why she chose this health career. In the nursing home clinical curriculum the students were to focus on beside care of the residents.

Katherine's score (1.00), which was noted earlier, was the highest of the group for the third interview. Katherine's responses to the questions provided a clear evidence of her engagement in the program and the school. She stated in the first interview that she considered dropping out of school to get away from the boredom she felt in her previous high school. The vocational program appeared to provide a change she needed.

So, first of all how do you like your clinical experiences?

"I liked it. I actually enjoyed it a lot. A lot of people don't real enjoy it though. I did."

What did you like about it?

"I just like being out, being with people, much better than sitting in class." (Student Interview 3, 15/J, p. 1)

Katherine did not identify any problems with her peers or her teachers in her final interview. She stated that she was looking forward to working in a Cooperative Education position the following year.

How are you getting along with the teachers in the building?

> Better now than towards the beginning of the year. They just, some of them, have seemed to actually start help a little bit, instead of like be all above us. (Student Interview 3, 15/J, p. 3)

3.1.6.12 Analysis across Student Interview 3: Common threads cont.

The group average of 15 students for all seven questions of Student Interview 3 was (.82). Katherine scored (1.00) and four students Betty, Kathy, Christine, and Annette scored

over (.90).   Three students scored (.75), Susan, Mathew, and Casey.   The remaining students,

Jackie, Andrea, and Natalie scored below (.66). The lowest score was Natalie's (.55).

The students' responses to their clinical experiences or internships received the highest

scores per question (.93). The students' expressions were positive about the work-based learning

or 'clinical experiences'. Betty brought out the positive and negative aspects of working with

people and caring for people which most of the students expressed was new for them to cope

with. She provided the following comments.

> I liked it [clinical]…it was alright, I didn't like leaving the residents at the end,
> that was about it. I didn't think I'd like it as much as the hospital, but I liked it
> I liked coming to the hospital…and I loved the ER. That's my favorite…

What did you like about the Emergency Room?

> I don't know, it was just more exposure, more like, you're not doing the same
> thing every five minutes. They're doing different stuff…

> I learned a lot more. I ran the EKG machine…I did vitals, a moved people on the
> stretcher a bunch of times….(Student Interview 3, p. 2)

Betty also provided insight into how work-based experiences may assist students to identify their

career goals more clearly.

> **What was your favorite thing about all the clinical?**

> I don't know, it was an experience; I got to figure out what one I want to go to the
> hospital for and what type of job I want. I started thinking about it…experiencing
> more. (Student Interview 3, pp. 1-2)

> Christine also identified the importance of the clinical experiences to her choice of
> careers in the future.

On a scale of one to ten, how important were they, [clinical experiences] a little bit important, kind of important, or very important?

> "I think they're very important, 'cause it's like showing you the skills that you learned

throughout the year, you need them."

Has clinical made any changes in your career perspective on what you think you might want to do for a career at all?

…It's giving me an idea of what I'd like to like to when I get my RN, like where I'd like to work. It's more, like, I know I don't want like be like tied down to one certain place 'cause I'd get bored, easy… (Student Interview 3, pp. 22-23)

Christine also emphasized how different clinical was from academic programs. She was asked to compare what she thought was going to happen on clinical with what actually occurred.

So I like to have your thoughts first of all about what you expected on clinical?

"...It's really different than normal school."

It's going to be different than normal school.

"Basically better, because we have actual stuff that we're doing. I didn't know what to expect…"

Then what did happen when you went out?

"The nursing home was definitely challenging. It was like some days I wanted to leave as soon as I got there, and other days I liked it." (Student Interview 3, p. 22)

Katherine, who had difficulty staying in a boring class when she first entered the vocational school, stated, "I just like being out, being with people, much better than sitting in class. (Student Interview 3, p. 32)

Kathy identified that she found clinical challenging for her, especially the patient procedures she was required to perform.

What did you think of clinical this year?

"It was interesting 'cause like I could do a procedure in class but is so much different doing it on actual people…rather than classmates."

You could actually do procedures on other people instead of just your classmates.

"Yeah, and if they have different reactions." (Student Interview 3, p. 15)

Another aspect of clinical experiences was the high level of socialization required of adolescents. Katherine identified this as her least favorite part of clinical experiences.

> You know, I mean, you had to be more open. And like …it's just so comfortable with just talking to people, which really wasn't at first. I still kinda ain't, but, just being able to walk in and help someone. A little awkward for me still. (Student Interview 3, p. 32)

Kathy identified how the staff was "edgy" and the nursing home environment was "depressing". However, Mathew's favorite part about clinical was the "people". He was asked if he liked being around them a lot. He responded that he did. (Mathew's progress on clinical appeared to reflect his answer. He was observed every clinical day working hard. The staff stated frequently how much he was liked wherever he was assigned.) He offered a comment on situations the students may see on internships and how they learn to manage feelings that occur with interpersonal relationships when they appear:

Anything else you like to add at all?

"No…I don't know….I like it and everything, except how people could be lazy."

Who's the lazy people?

"Can't say who the lazy people are, sometimes you don't say anything." (Student Interview 3, p. 32)

Katherine was able to use her "people skills" on clinical. Katherine entered the school and was observed often using an outspoken demeanor in class. Later the school year, she was observed often choosing her words more carefully to express herself. Eventually she was asked to join the 'peer leadership' group at the vocational school. This group is for the exceptionally adapted students in the school. They provide examples to other students of community involvement and other leadership skills for adolescents.

Did clinical have any impact on your getting along with people that you don't know?

"I really didn't go there; I have good people skills, so I don't know if I wouldn't have…"

Did it help you then? Like you get a chance to use your people skills, a lot?

"A lot." (Student Interview 3, p. 23)

Andrea, Susan, Annette, Casey, who previously had shown some ambivalence towards the program or the school, also responded with ambivalence about their clinical experience. Andrea saw her clinical experiences were a means to get away from the 'boring' school and classrooms. Andrea liked "…working with different types of things and different stuff" (Student Interview 3, p. 6). Susan's observed ambivalence as clinical approached also included apprehension. She requested an assignment working with the babies because she had a new baby sister at home. After Susan, who received learning support and was classified as EMR, demonstrated a safe level of care in the nursing home she was placed on the Pediatric Unit of the hospital. Working with the babies had been a goal during the year for her. Annette, who missed all of the hospital clinical because of the birth of her baby, identified these feelings in her interview.   She had not been permitted to provide care to the residents in the nursing home. She responded to her 'light duty' assignments in the following excerpt:

Did you like clinical very much?

"Um…I didn't like the nursing home."

You didn't like the nursing home. What didn't you like about it?

"I don't know…I thought it was like, there's not that much to do there, it's kind of boring." (Student Interview 3, p. 25)

Annette's observations brought forth the question of the importance of the hands-on skills for the students? She was not able to use these skills much on her clinical assignments.

Casey expressed much ambivalence for the program throughout the school year. She stated that she liked the parts of clinical that were already interesting to her such as working in the laboratory. Special arrangements were made so that Casey could go the Laboratory at the hospital because she had indicated a strong interest. However, for the four days she was scheduled to be in the Laboratory she was absent from school for three of them. During the school year as clinical was approaching, Casey often declared she wasn't going to like the nursing home. The nursing home experience was scheduled prior to her clinical days scheduled for the Laboratory.

"I liked the hospital but I didn't like the nursing home."

You liked the hospital but not the nursing home. And what did you like about the hospital?

"I liked being in the lab."

Well that's good. What did you not like about the nursing home?

"I don't know, I just didn't like it. It wasn't my thing."

Was it the patients, or the staff, or the overall environment?

"The environment."

The environment. How did it make you feel?

"I don't know, I didn't like it." (Student Interview 3, p. 28)

The question about the students' favorite and least favorite things about the program had the third highest group average (.81). The students' responses to their favorite and least favorite things about the Health Assistant program produced a wide spectrum of results. It was previously identified in the methodology that the levels of student initiated engagement in the students' responses were assessed positively without regard to the areas the students selected as favorite or

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least favorite about their work-based learning. This meant that a student could express a negative response about their involvement in work-based learning and still receive a higher score if the reason the student gave was considered initiated by them and provided engagement in their learning.

As noted earlier, the students were scheduled for clinical and had to miss their academic classes two days a week. Because of this unique situation, the students' responses to the questions appeared to be focused primarily on this unusual event. Therefore, the validity of the students' responses to this question was questionable.

Seven of the students identified the clinical experiences as their favorite thing about the program. Some students did not like the nursing home but like the hospital experience. Jackie identified "getting out of school" (Student Interview 3, 2/S, p.1) as her favorite thing. Mathew, who often stated that he did not like book work, indicated in his third interview that he liked the anatomy notes. He indicated that he enjoyed listening to them. Another common answer to the question was the procedures or hands-on skills the students learned in the classroom to prepare them for the clinical experiences.

Many of the students indicated that they enjoyed the group learning. However, Natalie preferred to sit alone. She believed that she learned better that way. Chelsea tried to sum her experience in the vocational program with her statement: "Good experience…you see a lot" (Student Interview 3, 12/S, p. 2).

The students mentioned other things that they didn't like about the vocational program. Jackie identified getting up and coming to school. She also didn't like having to stay in one room for a long period of time. Both of these issues were ones that Jackie had mentioned in her previous interviews. Casey stated that she did not like the nursing home environment, although

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she could not be more specific. Casey also mentioned "staying in the shop for two hours."

(Student Interview 3, 14/S, p. 2) She had mentioned this issue in her second interview.

Andrea, Mathew, Annette, and Kathy indicated that the book work was too much. Natalie

and Christine stated that it was difficult to keep up with their academics when they missed

classes because of the schedule change. Becky and Kathy mentioned how the other students in

the vocational program caused problems with their "drama". Chelsea identified how she didn't

like other students who voiced complaints about going on clinical or other issues.

If you could answer for a large group of students, would you say that hands-on experiences are they a good part of vocational education or are they not necessarily have to be part of vocational education?

I think it depends, on the person."

On the person? Oh, okay.

"'Cause I know some people could care less about clinical, and then some people like it,

some people it just depends…"

For the people that care less, what do you think their perspective would be? You don't have to name names of course, that isn't what this is about. We're trying to find….

I don't think that they should come…Because you know, whenever you get into that shop you're going be with people in the health care field, that's what you do…So, if you don't want to go, then I don't see why they're here. I don't see why they're in that shop.

'Cause that would be part of the program….?

"Well, it's Health Assistance, you're going to help people…"

Would you go out on clinical next year if you were asked to?

"Yeah." (Student Interview 2, 12/S, pp. 1-2)

The students' group response for their favorite and least favorite thing about the

vocational school received a (.75) score. The students' responses to what they liked about the

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school also varied. Many of the students referred back to their vocational program and the clinical experiences they completed. For example, Chelsea identified how she could balance her academics with something she liked in school.

> Cause I'd rather be doing something I like for half the day and then something that, well I don't mind academics, but now…But before I did, so I was like, at least now it'll be split. I'll have something I like, something I don't like so it'll work better. (Student Interview 3, 12/S, pp. 2-3)

> She also identified how a vocational education helped her focus.

> Basically better, because we have actual stuff that we're doing. I didn't know what to expect… I feel like I got a better outlook on what I wanted to do with my life. And, it's helped me, (inaudible), more caring towards people… (Student Interview 3, 12/S, p. 3)

The students who had problems with their peers at their former schools had positive comments to make about the vocational school. Annette identified the people around her as one of her concerns in her former school which led to her choice of Cyber School. Her response to the question what was her favorite thing about the vocational school follows:

> "Better people."

Better people, how so?

> "'Cause they're all nicer."

They're nicer people.

> "I get along with them better." (Student Interview 3, p. 26)

Andrea mentioned how her positive attitude towards the people at the vocational school, in a circumspect way, may have affected whether she dropped out of school. However, at the time of the third interview Andrea's academic and vocational grades for the year were near failing in all of her subjects. Vocational students that fail their shop for the year were required to return to their home schools the following year.

How are your other grades in the school?

"Not good."

You'll be going back to eleventh grade then?

"I don't know."

Oh boy…'cause you'd be a twelfth-grader next year…

"Um..um."

How's that make you feel?

"Kind of just like…so if I fail here, I'll end up going back to **** (Home school) and end up just dropping out."

Oh….you'd drop out if you had to go back to ** (Home school), why would that be…you wouldn't want to finish up there?**

"I don't like **** (Home school)."

You don't like it, what don't you like about it?

"The way they act and the way they are." (Student Interview 3, 13/S, p. 2)

Kathy brought up again the fact that she didn't have to wear a uniform as a positive factor in the vocational school. Kathy had mentioned wearing a uniform as a reason she changed schools in her first interview. She also found that she made new friends in the vocational school. Kathy's career goal of becoming a nurse was mentioned as part of her favorite thing about the vocational school.

Casey identified that she did not like the way some students were treated compared to others at the vocational school. In Casey's first interview she mentioned being in trouble "all the time" at school.

What are some of your least favorite things about the school, and you can be honest?

"…..I don't know, they treat people different. Some people get away with stuff."

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Okay, they treat people differently and some people do get away with things, like dress code and things like that?

"Um, um."

That's called favoritism, is that the word you were thinking of?

 "Yes."

Okay, does that happen in the room too, or only in the building?

"Only in the building." (Student Interview 3, 14/S, p. 2)

The students' group response for academics received a (.75) score. Andrea scored the lowest score (.25) in Student Interview 3 for this question. Andrea stated she did not make progress in her academic classes and was in danger of being sent back to her home school. As noted previously, she indicated she would drop out if this happened. The responses to this question produced two other low scores. Jackie and Mathew scored (.50). They did not express that they had any improvement in their academic grades or improvement in the academic work (bookwork) in the vocational program. Their statements were validated by a review of their previous grade reports. In comparison, Betty stated that her grades went up because she had to manage her time carefully when she missed academic classes because of clinical experience. Christine also stated that she managed her time better and her grades improved during the school year. She was able to balance missing academics and making up her assignments even though it was hard to do. Betty's and Christine's statements about improved grades were also validated by their recent grade reports.

The students often identified 'book work' as the hardest part and the least favorite part of the vocational program. Students with good academic grades or poor academic grades viewed the book work in the vocational program as difficult. The students also identified how different

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the anatomy and physiology vocational theory and vocational procedures were for the students.

In the following excerpt, Kathy identified the book work as relevant to her clinical experience:

You're an A student, A-B student, did you think the book work was easy for you also?

"Yeah…it was a lot of book work."

Do you think you would have done as well on clinical or liked it if you hadn't had the book work?

"No, I don't think so." (Student Interview 3, p. 17)

Mathew stated the academic classes at the school were about the same as his previous school. However, as previously noted, his grades were near failing when he entered the vocational school, and he was required to attend summer school as a condition of his acceptance to the vocational school. Mathew struggled throughout the year with the vocational book work. He stated that he preferred listening to lectures rather than reading information from a book. Mathew's response included how he had repetitions of the content in his academic work. "Well, like (inaudible) a little of the new classes with different classes, like Driver's Ed training, and a little more math, you know. But other than that though, it was all kind of the same stuff." (Student Interview 3, p. 21)

Casey believed her grades dropped because she could not make up her academic work when she went on clinical experience. She appeared to struggle with balancing her academic and vocational assignments. Casey indicated that she liked the academics classes and the vocational program in the same day. She also believed that the vocational school provided challenging academics, which was a different view from Mathew's. During recruitment presentations at the academic schools the students often expressed the belief that the academic classes in the vocational school were watered down.

"I don't know, it's different from regular home school."

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It's different, but how is it different?

"You learn your academics then you go for your shop. You learn two different things in one day. It's good" (Student Interview 3, 14/S, pp. 1-2). Casey often expressed she had trouble completing her academic make up for the day she attended clinical.

How did you handle not having academics when you were on clinical, did that work out okay?

"No…my grades dropped…." (Student Interview 3, 14/S, pp. 1-2)

The students were asked again to provide their thoughts about their teachers and peers in the vocational school. The students' group response for this question was (.90) score. However, a question about the teachers and peers was not part of the interview for Natalie, Susan, and Christine. The students who did not provide information for this question received no score. The students' group response score was based on the students who did respond. The students were also encouraged in the interviews to compare teachers from their home school with the vocational school teachers and the teachers they had in the vocational school. Betty stated about her vocational teachers that "I loved the teachers". (Student Interview 3, p.3) Jackie responded a bit less positively. "They were okay, they were actually better, because they actually work with you."

They actually work with you. Can you tell me a bit more how they worked with you compared to other teachers?

'Well, if I needed help they would let me stay after class and help you. They would let me come in earlier." (Student Interview 3, 2/S pp. 2-3)

Andrea also spoke positively about the teachers in the vocational school.

Let's look at the teachers for a minute without giving me any names at all…Did you find the teachers here less able, or sort the same, or more able to help you?

"More able…"

Okay, if you say that, then in what ways?

Like they actually like teach you instead of like just not doing anything and just giving you your assignment and not telling you what to do. They tell you what to do. (Student Interview 3, 5/J p.1)

Mathew indicated that he had fewer problems with teachers in the vocational school. He had no disciplinary problems in his vocational program. He had no disciplinary problems with teachers during most of the year after his disciplinary incident in the beginning of the year with a teacher. However, prior to his third interview

Mathew was disruptive enough with a teacher to receive five days out of school and a 'Disorderly Conduct' fine from the magistrate.

Annette, who attended Cyber School the year before, found the teachers at the vocational school to be more helpful. In her previous interview, she had mentioned how the teachers in her former school picked favorites. "The other teachers at the other school…They'll pick, they always pick favorites…" (Student Interview 3, p. 27). She followed with a comment on the teachers in the vocational school. "They give better explanations" (Student Interview 3, p. 27).

Katherine stated that she felt more comfortable with her teachers over the course of the school year. According to information from the vocational school's yearly discipline report, Katherine had a history of run-ins with teachers and in the beginning of the school year. She had cut classes and was also disruptive during ISS. Two of her ISS days were from her Chemistry teacher.

How are you getting along with the teachers in the building?

Better now than towards the beginning of the year. They just, some of them, have seemed to actually start help a little bit, instead of like be all above us.

Oh, really?

"Yeah, I've noticed that at least a couple of them…"

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Good?

"Yeah, I don't know what happened, but…"

How's your Chemistry going?

"It's going."

Do you think you got a B?

"An A."

An A?

"If I have a 92 or higher it will be an A for the semester, there's a whole (inaudible)."

Oh wow!

"And I had a 94 before this last test, so I don't know."

For the last question in the interview the students were asked to write recommendations for incoming students to the vocational school. The students' responses varied the most for this question. The students' average response was (.77) almost as low as their response to their favorite and least favorite things about the vocational school. Christine did not provide a response to the question. In her interview the question was not presented to her. The remaining responses were averaged to develop the score. This question also had the lowest individual student response score of (.25) for all of the questions in the third interview. Andrea and Natalie both scored (.25) for this question. Their responses were not specific and did not appear to reflect a high level of student initiated engagement for them.

Jackie's response to providing a recommendation for the incoming vocational students was scored low at (.50). It was noted that the level of engagement she provided for her answer about recommendations for incoming vocational students was equal to her responses about her grades (.50) and the favorite and least favorite things about the vocational school (.50).

Natalie, Mathew, and Casey scored (.75) respectively for their recommendations to incoming vocational students about the school and the program. Natalie brought up the need for the incoming students to attend clinical experiences a half day. This schedule would conflict less with their academic classes. Mathew identified how he believe the anatomy notes, which included some procedures for care of patients, would be important to new students. He also mentioned that new students should to listen to what was happening in the classroom.

Casey provided a comparison of her former school to the vocational school for new students. She had been in trouble a lot in her previous school, "I was in ISS a lot" and also "bored" with her school in general. Casey seemed to prefer the more structured discipline provided by the vocational school. (Student Interview 3, 14/S, p. 3)

What are some of things that you could tell a new coming into the building here that's so different our school compared to **** (Home school) school?

> **** (Home school) they let you get away with a lot. You're always, sometimes, it's just different. When you get in trouble, you stay in a room, you don't….you know …They give you warnings before you get in trouble. But here it's like if you do something, you're automatically in ALC. And then…I don't know, it's better than ****…I think. The dress code, you get to wear what you want, basically. **** (Home school) has uniforms now.(Student Interview 3, 14/S, p. 3)

The remaining students, Betty, Kathy, Annette, and Katherine scored (1.00) for this question. Previously noted, the students also had high average scores for the third student interview. Betty provided a recommendation for the incoming students to focus on their goals and not become overly concerned with their peers in school.

> Its fun…it's a fun program, you learn a lot. I loved the teachers. The only thing, don't let the other students (inaudible) let them bother you, they're not going to change nothing, you know. If you want your RN you're going to go towards it, you're not going worry about them, or what can happen (inaudible) other people, other employees, other students …It's always going to be there, it's always going to be around, all that (inaudible) other things. Just concentrate on your work…" (Student Interview 3, 1/S, p. 2)

Kathy's recommendation to incoming students focused more on her personal issues. She initially started in a vocational program which she didn't like. Changing vocational programs once the student selects a program is not easy. Sometimes the other programs are full. The student may request a shop change too late in the school year. Often late requests for changes are not considered until the following school year. Kathy also address pressures from friends who want a student to remain with them in the home school.

> That….a lot of my friends told me not to come here…but at first I didn't want to, then I wanted I to…so, only come like if you want to, not if anyone else wants you to…

Why do you say, only come if you want to, not if anybody else wants to?

> Because, if someone wants you to, then you don't know exactly what you want to do. You may register for a shop and you don't like it and end up changing or something, …

Do you think that people your age can pretty much know what they want to do?

> "I think some of them can, yes."

So you found out when you were on clinical that you liked to give care. How does that feel?

> **"**Pretty good."

That felt pretty good. Do you feel good about yourself then?

> "Yes."

You did. Oh, that's a special feeling nobody can tell you how it is until you're doing it…

> "It's kind of nice…yeah."

Would you recommend this program to other people?

> "Yes." (Student Interview 3, 9/S, pp. 2-3)

Annette's recommendations also appear to reflect her response of why she chose the vocational school. She had been in Cyber School the year before. She indicated she had

problems with her peers in her former school. Annette also described her teachers as not being very helpful in her first interview. Annette returned from her delivery late in the school year after the hospital clinical was completed. She noted that the other students were not as unfriendly as in her previous school. The teachers did not pick favorites in the vocational school either. These issues were brought up in prior interviews by Annette. She provided the following recommendation for the vocational program and the vocational school. She also stated that her grades had improved which was validated with her grades reports. Annette said she looked forward to her future career in nursing. "That it's a better school. People are nicer, the program's good. You learn about a lot of things. The work that they give you is better….teachers are nice."

Has coming here helped you focus on a career?

"Yeah, actually yeah I have. I learn more and I get better grades being here. Like I pay attention more than here than I did there."

Really, you pay more….wow, I never thought about that.

"Yes. After I graduate, I want to go to nursing school." (Student Interview 3, 13/S, pp. 2-3)

Casey provided a recommendation to incoming students which mentioned the stricter use of student suspension for infractions. She indicated the vocational school did not give the students warnings about disciplinary infractions. Instead, the students were given suspensions immediately. She stated that it was "better" to have disciplined handled this way.

Katherine brought up the same issues that she stated had attracted her to a vocational education in her recommendations to incoming students. Katherine expressed in her first interview that she was not willing to sit in academic classes "day after day". She also focused on

the academic component, the technical knowledge required in a vocational program, incoming students should consider. Katherine identified in her recommendation to incoming students that they should choose a vocational education because they wanted it. She described the hands-on roles for students compared to a more academic settings.

> …You definitely have to want to more hands-on and not as much sit-down, and reading, and studying and…It's definitely more, more active than just sitting there trying to memorize like vocabulary or whatever. It's something you have to want to do, not just something you just go do. (Student Interview 3, 14/J, p. 2)

As noted earlier, information in the data that was not placed on a matrix of student engagement was documented and categorized as 'common threads'. As noted in Student Interview 1 and Student Interview 2, in the common threads, the students' interviews were analyzed within the dialogues for similarities in content, not necessarily the same responses to questions. The common threads developed in Student Interview 1 and Student Interview 2 were used in the analysis of common threads of Student Interview 3. There were additional common threads in the students' responses in the third interview which were not identified in Student Interview 1 or Student Interview 2. An example of a new common thread was the students' comments on work-based learning or clinical. A parallel common thread from the first two interviews would be hands-on learning.

The common threads previously identified were, absenteeism/tardiness, major discipline referrals, relationships with other students, relationships with teachers, grades, prefers hands-on learning, teacher relationship affects work, positive response to independent learning, career goals, and the addition of response to clinical (work-based learning). The common threads were an attempt to quantify information over the three student interviews. For example, more students had no absenteeism/tardiness at the point of the last interview compared to the first interview.

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Also, the two students who continued their absenteeism/tardiness (Jackie and Andrea) entered the vocational school with excessive days of absences.

The students also decreased (.81) their discipline referrals by the third interview. Only two students, Jackie and Mathew, continued major discipline referrals requiring ISS or OSS late in the school year.

The students indicated they had improved their relationships with other students (.81). Two students (Natalie and Susan), who received learning support and often expressed their dislike for group learning, indicated their relationships with other students were fair.

The students also noted improved relationships with their teachers (.91). Mathew indicated his relationships with teachers had improved from poor to fair. However, at the time of the third interview, Mathew had recently received an OSS in his academic class.

In another common thread the students continued to identify with their career goals (.73) in the third interview with the career goals they had identified in the first two interviews. Jackie, Casey, and Susan, who expressed that they were unsure of their career goals, continued to express statements similar to those in the first two interviews.

In the third interview Betty's, Jackie's, Andrea's, and Annette's responses to how the teacher positively affects their work in school was (1.00) The other students from the study group provided no answer to this common thread.

The students, except for Natalie and Susan, reported positive responses in the third interview to the independent learning (.91) found in the vocational classroom. The independent learning included self-direction about completion assignments and whom they would work with, and when they chose to do lab or written assignments. Natalie and Susan received learning support and Susan was classified as EMR.

The final common thread related only to Student Interview 3. The students' response to clinical or work-based learning was (.91). Two students, Jackie and Casey, responses to clinical were only fair. Jackie and Casey also had expressed they were unsure of their career goals.

3.1.6.13   Emerging Themes

The following themes emerged from the data in the student interviews. Most of the themes developed in Student Interview 1 and Student Interview 2 and continued into Student Interview 3. However, work-based learning emerged in Student Interview 3 after the students attended work-based learning in student internships:

1.   Students' interests in health careers.

2.   Hands-on instruction

3.   Work-based learning in student internships

4.   Early identification of students who may lack 'attention to work'

5.   Expressed positive relationships by the students with their teachers

6.   The explanatory style of teaching as a positive teaching quality

7.   Expressed positive relationships by the students with their peers.

8.   Work-based learning in student internships

An emergent theme which transcended all three student interviews was the students' interests in the health careers. The theme was evident after Student Interview 1 and Student Interview 2 which occurred before the students attended work-based internships or clinical experiences. Student Interview 3 was completed after the work-based internships. In the third interview the students continued to express interests in the health careers. Based on the students' expressions in the three interviews and the development of the common thread for career goals, it appeared that hands-on instruction in the vocational program followed by work-based learning in

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student internships the appeared to enhance the students' interests in health careers. The students were exposed to numerous nursing and allied health positions during their work-based experiences. The work-based experiences about what a career in the health field might entail.

Another emergent theme from the first and second student interviews was the early identification of students who may lack 'attention to work' and a sense of internal initiative which may be crucial prerequisites for active or student-motivated engagement. The responses by the students in the third student interview exposed the critical qualities the elements of 'attention to work' and active or student-motivated engagement may have on the success of students who enter vocational programs. The results indicated that students who scored high in 'attention to work' attained an active or student-motivated engagement in their learning. Also, students who entered the vocational school with some level of student initiated engagement, or the open acceptance of the vocational learning environment that would promote student-initiated engagement, were found to improve their levels of engagement during the first year in the vocational school. In contrast, the students who entered the vocational school with lowest scores for 'attention to work' and overall low scores for internal initiatives continued to struggle through the vocational program. The students with moderately low scores for 'attention to work' and lower scores for internal initiatives did progress towards high levels of active or student-motivated engagement.

The importance of the students' relationships with their teachers also emerged as a theme from the data. The students who expressed positive relationships with their teachers were observed to also perform well in the vocational environment. Also, many of the students, who entered the vocational school with histories of negative relationships with their teachers and

disciplinary problems, were noted to decrease their disciplinary interventions if the students began to express improved student-teacher relationships during their interviews.

The explanatory style of teaching as a positive teaching quality was identified by the students in Student Interview 1. This quality of teaching was also expressed in the subsequent student interviews. The explanatory style of teaching was considered an emergent theme for two reasons. First, the students identified this teaching quality without prompting during the interviews. Second, the students also identified that they were aware when teachers did not use this style of teaching and the effect it had on their learning.

The students' relationships with their peers provided another developed theme in the data results. Some students entered the vocational school to change schools because of peer relationships as well as follow a vocational career. In Student Interview 1 five students expressed poor interpersonal relationships with their peers. Four students expressed fair interpersonal relationships with their peers. Six students reported good interpersonal relationships with their peers. One student had no response. Thirteen students expressed good interpersonal relationships with their peers in the second interview. Two students expressed fair interpersonal relationships in the second interview. In the third interview the results were the same. The new students viewed their vocational school peers as more accepting and less judgmental. Student cliques were identified, but students could cross-over between them.

An emergent theme which focused on the students' clinical experiences or work-based learning was identified at the conclusion of the analysis of Student Interview 3. The students expressed positive responses to work-based learning. The students' positive expressions about work-based learning led to group average of (.93) to this question. In order to validate this theme, the students' attendance records were cross-referenced and triangulated with anecdotal

notes about the students. Most of the students in the study group that completed the third interview had high attendance records for school days with scheduled work-based learning. Jackie was the only student who did not attend school on days of clinical experiences. Jackie expressed difficulty in all three interviews with getting up and getting to school on time. On clinical days the students had to dress in uniforms and ready to depart immediately after attendance because the bus left promptly in the morning to the work-sites. Casey, who stated that she did not like clinical experience, remained in school on clinical days to complete her academic assignments.

3.1.6.14   Analysis across three interviews: Progress of the study group

The study group of students improved during the year for their levels of active or student initiated engagement. The average score for each of the student interviews contains data about the students who were admitted late, relocated, absent for Student Interview 3, or returned to their homes schools. It was important to reflect the shifting nature of the vocational class and to include the data of the students who made up the changes.

The average scores of the three student interviews is provided in Table 3.4. The Students who obtained the highest and lowest averages for each interview were identified.

Table 3-4 The Average Scores Of The Three Student Interviews

	Student Interview 1	Student Interview 2	Student Interview 3
Average Score	.68	.77	.82
Student High	.96 (Meredith)	1.00 (Katherine)	1.00 (Katherine)
Student Low	.38 (Jackie)	.53 (Jackie)	.55 (Natalie)

Table 3.5 provides the students' scores for their responses in the three student interviews. Many of the students improved their scores. However, students who entered with academic disadvantages did not score as well overall as the students who entered at grade level or slightly above grade level academically

Table 3-5   Individual Student Progress

Individual Student Progress			
Student Name	Student Interview 1	Student Interview 2	Student Interview 3
Betty	.72	.85	.95
Jackie	.38	.53	.66
Meredith	.96	.78	(Relocated)
Patty	.60	(Returned to Home School)	
Andrea	.57	.57	.66
Jean	.93	.96	(Relocated)
Natalie	.67	.92	.55
Susan	.53	.60	.75
Kathy	.93	.85	.90
Mathew	.56	.57	.75
Tara	.82	.67	(Absent from school)
Christine	.92	.93	.90
Annette	.60	.89	.91
Casey	.49	.93	.75
Katherine	.61	1.00	1.00
Marilyn	.64	(Returned to Home School)	
Laura	(Not admitted)	.61	(Absent from school)

3.1.7   Teachers' Interviews

Author's note: The vocational teachers in the study were colleagues who taught in the same vocational school as the Primary Investigator. The teachers expressed a willingness to participate in the study. One teacher declined to participate, and he did not provide a reason. The vocational teachers interviewed during their lunches or break times, or before or after school. Most of the teachers indicated when the invitation to interview was presented that the topic of 'student engagement' was important to them because it affected their students. The vocational teachers expressed concern about the changes in vocational education in the pre interview

conversations. The more experienced teachers were particularly concerned about the changes in the types of students who enter vocational programs.

3.1.7.1 Teachers' Interviews: Introduction

Twelve vocational teachers comprised the study group. The vocational teachers had diverse backgrounds. Their diversity was present in part because vocational teachers had prerequisite professional experience in their area of instruction as part of their teaching certification requirements. The professional experience was obtained from business and industry positions they held before they became teachers. Seven of the teachers interviewed were considered 'veteran' vocational teachers with more that five years of vocational teaching experience. Four of the seven veteran teachers had more that 15 years of vocational education experience. Four of the seven veteran teachers had Bachelor's degrees and two of these also had Master's degrees while one had a Master's Equivalency. The remaining veteran teachers had Vocational II Certification similar to the Permanent Teaching Certificate or Instructional II Certificate. The five new teachers had differing educational backgrounds. Three new teachers had a minimum of a Bachelor's degree. The other new teachers were working towards their Vocational I certification.

The teachers were interviewed prior to the students to obtain information about student engagement from their perspectives as educators who worked in a vocational high school. The information from the teachers was included in the development of the student interview questions. The teachers expressed numerous concerns about the students. The teachers acknowledged that by the time the students were enrolled in vocational schools they appeared to have numerous educational, social, and emotional disadvantages. Veteran teachers believed that the students had "changed" in the last few decades. For example, they stated that more of the

students with behavioral problems were observed by them in the classrooms. The teachers added that the students with behavioral problems often cause delays in their teaching or interfered in other ways with the classroom activities or the other students' learning. The teachers expressed how important they believed the teacher-student interpersonal relationships to the success of the students. (Author's Note: This concept was not surprising. A current momentum is underway to address the increasing dropout rate for high school students by changing the amount of time the students spend with teachers. Secondary students would have a smaller number of teachers involved with their education. The students would have an opportunity to develop closer, more intimate relationships with the teachers, similar to a family and extended family relationships. One philosophy for support of this movement was to enable students without strong family relationships to develop similar ones at school with teachers and other educators. The closer student-teacher relationships would fill voids in some adolescent students' lives. [*ABC News* November 21, 2006 Dropout story])

The teachers voiced two main areas of concern about their new vocational students in the school. The first concern was the students' lack of academic preparation. Second, they identified that the students were observed to have an overwhelming degree of social and emotional issues that impeded their progress in school.

The teachers were asked to consider what the term 'student engagement' meant to them. The teachers were encouraged to review their recent observations of the students and then to identify whether the students in their classrooms appeared engaged. Student engagement was determined by the teachers' descriptions of engagement. The teachers were then asked to consider how student engagement might be affected by the types of students who entered or were accepted into the vocational school. The transition of the students between their home school and

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the vocational school was considered. The teachers were also asked to identify expressions they may have heard the new students make about the vocational school.

Three questions considered the pedagogy found in vocational education. First, the teachers were asked to identify the strategies they used to promote student engagement? Second, the teachers were asked to consider if the vocational curricula enhanced or detracted from student engagement? Third, the teachers were asked to consider what qualities of vocational education, i.e., competency-based education, individualized instruction, hands on learning, or others promoted student engagement?

For the purpose of the study, student engagement was considered more positive the more it was identified by the teachers as student initiated and student driven. Less positive student engagement was identified by the teachers as more teacher initiated and teacher driven. The matrixes for the questions addressed to the teachers varied with each question so that the matrixes fit the questions better. However, the questions, except for seven and eight, which were not applied to matrixes, had four levels of scores (1 to 4). The teacher responses were considered more valuable and received a score of 4; the more the students initiated the learning or the engagement. The methodology for scoring the teachers' interviews was closely aligned to the methodology used in the students' interviews to provide continuity in the analyses between the two sets of interviews, provides the range of matrixes for the Teacher interview questions. As noted in the methodology the teachers' interviews were scored with a matrix similar to the ones used to score the students' interviews.

Noted earlier, the strength in student engagement was supported by the level of the students' commitment and proactive initiation of engagement. A presupposition in scoring the teachers' responses was this definition of positive student engagement found in the research.

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Student engagement was scored low or not evident at level one in the teachers' responses. Therefore, although the teachers may have expressed strong initiative to have the students involved, these were considered lower levels of student engagement for the purposes of the research because the methods were teacher initiated and not student initiated. The rationale for this, also previously mentioned, was determined by the need for vocational students in the research to develop strong independent learning skills in the competency-based vocational programs. It also was identified in the research that the measure of the students' independent learning abilities was a major factor for positive student engagement.

(**Author's note**: The word 'technical' is often viewed as synonymous for the word 'vocational'. Yet the word technical has much stronger implications for student engagement. In vocational education, the measure of the students' abilities may be best measured in the caliber of their demonstrated technical work, such as for electricians or surgeons. Each 'technical' skill, or competency, requires the participation of the learner in ways usually not seen as often in more traditional academic settings. Therefore, the degree of the learner's demonstrated competencies and the observable development of the inner relationship of the learner to his external environment may provide the best measure of student engagement.)

3.1.7.2 Analysis of the Teacher's Interviews by Question

Noted earlier in the methodology, the first six questions of the teachers' interviews were selected to identify what the teachers believed about student engagement. The questions were also designed to lead the teachers to their observations about the new vocational students and what strategies they used to promote student engagement. Question 7 asked the teachers to identify qualities in the students' environment that believed would promote learning. Question 8 asked the teachers to empathize with the new students to identify what the teachers believed the

students thought when they first entered the vocational school. Question 9 was provided to facilitate the free flow of any information the teachers' felt was important about the students, student engagement, and vocational education.

The first six questions were placed on a matrix for student engagement previously identified. The higher quality student engagement was student initiated, and the lower quality student engagement was teacher initiated. The remaining three questions were not applied to the matrix because they did not focus directly on student engagement. These questions were designed to lead the teachers toward their observations about the new students and the students' learning environment. All of the questions were analyzed for common threads of information and the frequency of some of the teachers' responses.

The Teachers' Interviews with the teachers' responses applied to the matrix of student engagement is provided in Table 3.6. The teachers' responses to the Questions 1-6 of the Teachers' Interviews were scored according to the previously identified range for each question. The lowest score average score for a questions was (.58) for Question 1. The highest score was (1.00) for Question 6.

Table 3-6 The Teachers' Interviews With The Teachers' Responses

of Questions 1-6 with Teachers
rs' Responses (Coded Name and Experience)

Names		What term student engagement means?		Do students appear to be engaged?			Particular expressions of students entering?		Teaching Strategies		Does vocational curricula promote or detract?		
Jones	1/O	1	0.25	1	0.25	0.75	2	0.50	2	0.50	4	1.00	0.54
Brown	2/N	1	0.25	4	1.00	0.75	2	0.50	3	0.75	4	1.00	0.71
King	3/N	4	1.00	2	0.50	0.75	3	0.75	3	0.75	4	1.00	0.79
Smith	4/N	1	0.25	2	0.50	1.00	4	1.00	2	0.50	4	1.00	0.71
Douglas	5/O	2	0.50	4	1.00	1.00	3	0.75	4	1.00	4	1.00	0.88
Lamb	6/N	3	0.75	4	1.00	0.75	3	0.75	2	0.50	4	1.00	0.79
Jackson	7/O	4	1.00	3	0.75	0.75	4	1.00	4	1.00	4	1.00	0.92
Andrew	8/O	1	0.25	2	0.50	1.00	3	0.75	2	0.50	4	1.00	0.67
Edwards	9/N	4	1.00	3	0.75	0.75	3	0.75	3	0.75	4	1.00	0.83
George	10/O	3	0.75	3	0.75	0.75	1	0.25	2	0.50	4	1.00	0.67
Arnold	11/O	1	0.25	2	0.50	0.25	1	0.25	2	0.50	4	1.00	0.46
Paul	12/O	3	0.75	1	0.25	0.75	4	1.00	4	1.00	4	1.00	0.79
			0.58		0.65	0.77		0.69		0.69		1.00	0.73

The teachers' responses indicated differences in how the teachers viewed student engagement as a process and the teaching strategies they used to promote student engagement.

The teachers' responses were placed on the levels of engagement from the previous matrix and the average for each question was determined and shown in Table 13. For Question 6 'Does the vocational curricula promote or detract from student engagement' the teachers all responded that the vocational curricula promoted student engagement.

A comparison of the new teachers and the experienced teachers' responses to Questions 1-6 were identified in Table 3.7. The responses between the sets of teachers, new or experienced, were close for the questions. The area of strongest agreement was whether the teachers believed the vocational curricular promoted engagement? The second strongest agreement was with the question about how student engagement was affected by the types of students who entered the vocational school.

Table 3-7 Teachers' Responses and Placements for Questions 1-6

Total number of teachers responses on levels 1 to 4 to each question						
	What term student engagement means	*Do students appear engaged*	*How engagement affected by types of students entering*	*Particular expressions of students entering*	*Teacher Strategies*	*Does vocational curricula promote or detract*
Questions #						
Level	1	2	3	4	5	6
1	5	2	1	2	0	0
2	1	4	0	3	6	0
3	3	3	8	5	3	0
4	3	3	3	3	3	12
Avg. per question	.58	.64	.77	.68	.68	.1.00
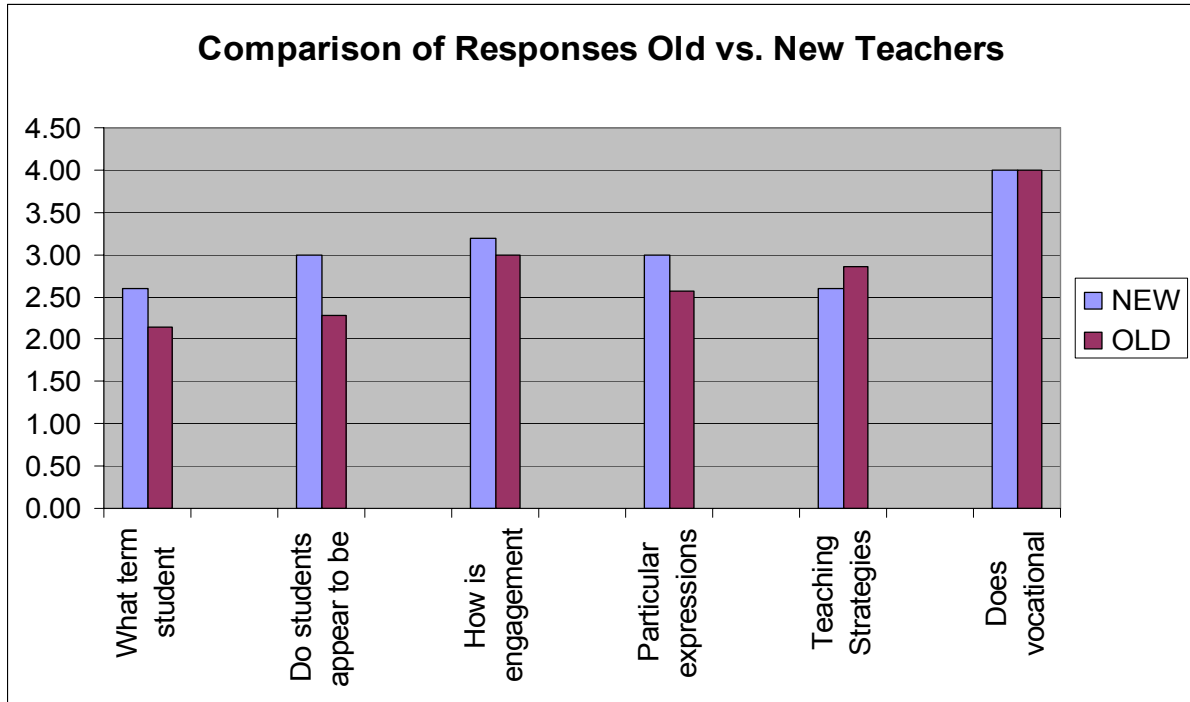
Figure 3-15 Comparison of the New Teachers and the Older Teachers' Responses To Each Question

Question 1: What does the term 'student engagement' mean to you?

The teachers' responses were placed on a matrix with teacher initiated engagement scored the lowest and student initiated engagement scored the highest. The following table provides a view of the teachers' responses: The breakdown of the teachers' responses to Question 1 are provided in Table 3.8.

Table 3-8 The Teachers' Responses To Question 1: Their Application To The Student Engagement Matrix

Teachers' Responses Which Used the Following Words	
	# Of Teachers Responding
Getting students involved	9 Teachers
Interaction with students	2 Teachers
Getting students interested	3 Teachers
Hands-on	2 Teachers
Teachers' Responses Applied To The Matrix	
Engagement mostly teacher initiated	5 Teachers
Engagement somewhat teacher initiated	1 Teachers
Engagement more student initiated than teacher	3 Teachers
Engagement mostly student initiated	3 Teachers
TOTAL	*12*

Question 1 had the lowest cumulative score (.58) of the six questions posed to the teachers about student engagement. The teachers' level of education or years of experience were found in the analysis not to be factors in how they defined student engagement. Three of the teachers who provided definitions of student engagement at the lowest end, that is, teacher driven were veteran teachers. In contrast, three of the newest teachers provided the stronger definitions of student engagement identified in the study as student initiated. The four teachers that scored the lowest for their definitions of student engagement had at least a bachelor's degree. And two of the two teachers that scored the highest had only their Vocational II Certification or a Vocational Intern Certification (First year teacher). Six teachers, three veterans, defined student engagement as somewhat teacher initiated or mostly teacher initiated. Three teachers, two veterans and one new, defined student engagement as more student initiated. Three teachers, two new and one veteran, defined student engagement as mostly student initiated.

Nine teachers identified student engagement specifically as "getting the students involved." This response was considered teacher initiated. "Getting the students interested" was a similar response. The teachers whose responses were scored low for this question responded with teaching methods such getting the students involved and interested, or for the teachers to become more involved with the students. Some examples of teacher initiated student engagement are the following responses from Mrs. Jones and Mr. Brown. Involving the student in the aspect of learning, and the whole process." (Teacher Interview 1/0, p. 2) [T]o get them interested, involved or somehow get their heads in the classroom or school with whatever the subject is." (Teacher Interview 2/N, p. 2)

Two teachers provided reciprocal or interactive definitions of student engagement which receive moderate scores. These teachers often used the word 'interacting' with the students, or 'working' with the students.

At the highest level, student initiated engagement, the teachers defined the students as not only active participants, but more proactive in their learning. The students chose learning based on their inner concepts or past experiences. The teachers' responses which exemplified the stronger definitions of student engagement as being more student initiated were focused on the students' activities. An example of this definition of student engagement was from Mr. King who was a new teacher:

> [W]hen he is using information he has already and he's engaged in the project…
> I think that when you're engaged you kind of like, I don't want to reuse the word,
> you're engaging all your senses all your knowledge, maybe it's to one focus, but
> you're driving a whole lot of stuff with it, a whole lot of knowledge and it's
> expanding and expanding as you're going to that point whether you like it or not
> it gets harder. (Teacher Interview 3/N, p.2)

Teacher personality appeared to be a factor in the teachers' definition of student engagement. For example, the six teachers who provided the stronger definitions of student engagement expressed more empathy for the students' positions and their backgrounds throughout their interviews. These six teachers also identified interactions between the students and teachers as a strong component to student initiated or active engagement. Mr. Edwards, the least experience teacher, provided an example of teacher empathy.

> The only way I can answer that is that every student is different. And even
> though they're categories of students, some are very much involved in their
> vocation and others are here, that I see, as a means to just get through, get
> by."(Teacher Interview 9/N, pp. 2-3)

Mr. King clarified how he believed that student engagement was beyond the student and teacher relationship and more student-driven.

[S]tudents are involved in the daily activities that you have in your classroom. Ah, not just as like a teacher-student. The student becomes engaged then they are interested in coming to school, doing the assignments, and doing the project work in the shops. Once a student is engaged it is easier to keep them on task on the projects and all their work. (Teacher Interview 12/0, p.3)

Question 2: Do students choosing a vocational career appear to be engaged in their learning?

Question 2 was scored similarly to the first question. However, the teachers' subjective interpretations of the term student engagement and whether they believed the students to be engaged was considered. The scoring was based on whether the students appeared engaged to the teachers. Higher scores were given to the teachers' responses in which they observed student initiated engagement in the students.

The average for the teachers' responses to Question 2 (.64) was slightly higher than the first question about the teachers' definitions of student engagement. There were relational results between Question 1 and Question 2. For example, in Question 2 six of the teachers' responses were scored lower because they stated that the students did not appear engaged or the students somewhat appeared engaged in their learning. Six teachers' responses were scored lower when they responded in Question 1 that student engagement was always or mostly driven by the teachers. Of the six teachers who responded in Question 1 that engagement was always or mostly driven by the teachers, four of them also had their responses scored lower for the second question about whether the students appeared engaged in their learning. In the four lower scoring teachers' responses the teachers appeared not see the students as very engaged when they entered the school. The other two teachers, who had their responses scored low for the first question about the definition of student engagement, had their responses scored high when asked whether the students appear to be engaged when they enter the school. This data provided a mixed result

for comparison of the teachers' responses for lower level engagement (that is teacher driven) and their views of the new students as not very engaged when they enter the school.

The teachers' responses for Question 2 were grouped and appear in Table 3.9. It was noted that four other teachers' whose responses were scored low to Question 2 also had low scores for their responses to their definitions of student engagement in

Table 3-9 Grouping Of The Teachers' Responses For Question 2 About The Students' Engagement

Teachers' Responses Which Used the Following Words	
	# Of Teachers Responding
Students do no initially appear engaged	*3 Teachers*
Students appear somewhat engaged in chosen vocation	*2 Teachers*
Students demonstrate a high level of engagement	*5 Teachers*
Students in school for other reasons than vocational choice	*4 Teachers*
Students who chose school appear more engaged	*6 Teachers*

Question 1. Many of the teachers who identified student engagement primarily as teacher driven also identified the students no engaged in their learning. The teachers who responded that student engagement was student initiated in Question 1 also had their responses scored higher in their identification of students engaged in their learning in Question 2. The following quotes are from Mrs. Jones and Mr. Arnold were examples of comments which were scored low for Question 1 and Question 2.

Question 1 Mrs. Jones	"Involving the student in the aspect of learning, and the whole process." (Teacher Interview 1/O, p. 2)
Question 2 Mrs. Jones	"…engagement takes me all year, I believe to actually get them on board and see it for what it is." (Teacher Interview 1/O, p.4)
Question 1 Mr. Arnold	"I would say that it's being involved with the student mostly on a more one to one basis as opposed to a group, although you could personally engage with multiple students. I think it's more hands-on, more showing…more even to the point of things above education in their personal life." (Teacher Interview 11/O, p.3)
Question 2 Mr. Arnold	"I would say many are, but I do say some of them, there's a number of students who came here basically…not because they're so

interested in vocational…learning vocational, as leaving
their home school…looking for something else." (Teacher
Interview 11/O, p.5)

"Not from day one. 'Cause I'm not so sure that the students
actually choose to come here. I think sometimes they're just,
more or less, disengaged in other programs so they move them
toward this program hoping that they'll get engaged in something.
But my experience here, is that that hasn't been happening."
(Teacher Interview 12/O, p.5)

Two of teachers, Mr. Brown and Mr. Douglas who defined student engagement as teacher driven in Question 1 had stronger engagement responses to the second question. Their responses to whether the students appeared to be engaged in Question 2 were different from the previous responses by Mrs. Jones and Mr. Arnold.

Mr. Brown   "I'd say yes, they appear to be engaged in, from my experience in
the shop, it's new to them, it's exciting, it's interesting and they want to;
they have somewhat chosen this path, because they think they wanted
it." (Teacher Interview 2/N, p.4)

Mr. Douglas   "I would say most of them. A few of them came with other reasons
I think. But most of the students I've had seem like they were very
interested in this vocation." (Teacher Interview 5/O, p.4)

The common threads for this question included identification by four of the teachers of the students who were in the vocational school for other reasons besides their career objective. Mr. King stated in response to whether the students who chose a vocational career appeared interested in Question 2 that "it's almost 25% are and 75% are here because they had to do something and this is what they chose. And oddly enough at the college level, I found that to be consistent also." (Teacher Interview 3/N, p. 4) Mr. King's statement that there was observable similar situations at postsecondary schools appeared to validate the responses in Question 2 by the four teachers who saw the new vocational students in the school for other reasons besides vocational choice.

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Mr. Arnold believed that many of the new vocational students are interested in a vocation when they come to the school. However, he added that many students are also placed in vocational schools without the students' apparent vocational choice. In the following description Mr. Arnold indicated that the teachers who have students without apparent vocational choice can identify are able to identify them early in the school year.

> I would say many are…but I do say some of them, there's a number of students who come here basically…not because they're so interested in vocational…learning vocational, as leaving their home school…looking for something else. (Teacher Interview 11/O, p. 5)

Question 3:   How is student engagement affected by the type of students entering vocational programs?

The method to score Question 3 was based on the teachers' responses of whether student engagement was affected by the types of students entering vocational programs. Teachers' responses were scored low for Question 3 if the teachers indicated that student engagement was not affected by the types of students entering vocational schools.

The rationale for this method of scoring was validated in the literature. The types of students who enter vocational schools were found to have an effect on the students' engagement. Also, the students' with higher levels of student initiated engagement appeared to be better acclimated to vocational education. The research also indicated that students who are not academically disadvantage may be in better positions to utilize the learning environment offered in a vocational program. These students may be more likely to provide student initiated engagement.

The average for the teachers' responses for Question 3 was (.77). The average reflected how the teachers expressed that student engagement was affected by the types of student entering the vocational school. Almost half of the teachers indicated that students who enter vocational

schools are often affected by their poor academic backgrounds. A fourth of the teachers also noted that many of the students have histories of not working in school.

The teachers identified that students who were placed in their career choice (or first choice on their career objective forms) appeared more engaged by the teachers. This result was expected. In the students' interviews, the students also stated that they were aware of their 'first choice' of vocational program. The students indicated a strong preference in their interviews for their first choice of vocational programs. However, Betty and Jackie, who chose Cosmetology as their first choice before they were admitted, both declined to be transferred to Cosmetology when it was opened to them later in the first grade period. Kathy switched vocational programs to Health Assistant early in the school year. She stated that her choice was a positive one for her.

One third of the teachers identified that some of the students have histories of not working to their potential in school. This result was expected. According to the students' permanent records, a large percentage of the students entered the program educationally disadvantaged. The disadvantaged percentage for the school was also high. A few students entered the Health Assistant program with QPA's below 1.00. The students frequently acknowledged their histories of underachievement.

The teachers also identified that the students' home lives/backgrounds often had a negative affect on their engagement. This result was expected. However, the number of teachers who indicated this was lower than expected. The students in the study group all met the criteria identified earlier to be considered at-risk. The students mentioned issues other than their academic disadvantaged status in their lives or backgrounds that placed them at risk. These issues included; single parent homes' no parental supervision in the mornings to get to school;

poor work ethic portrayed by parents and older siblings; poor academic grades prior to attending the vocational school; and poor interpersonal relationships with previous teachers and students.

Mr. Arnold provided a response which was scored low. He identified all students as being engaged and engagement as teacher driven "…face it, you engage all students, all students are engaged in one way or another. Even if you engage them personally or try to just help them mature…" "…I believe all students have to be engage. They have to be taught something even if it isn't the traditional standards of school." (Teacher Interview 11/O, p. 7)

The comments that follow identify the dilemmas the teachers had with students who did not choose a vocational education or students who have academic or economic or socio-emotional issues that affect their engagement. The teachers also provided comparisons of the students who chose vocational education to those who did not. Their individual comments often incorporate different issues affecting student engagement. Therefore, their comments were kept intact for consideration.

Mrs. Jones "It makes it difficult." "When they get here this particular type of student has not worked that hard in any particular area…" "…and that's why the process takes so long, I believe, to get them on board." (Teacher Interview, p. 6)

Mr. Brown "…from a teacher's standpoint, it takes different tools to get them engaged depending on their background..." "From the students' perspective, I think that their background …and their home life makes a big difference in how self-disciplined they are and how well they motivate themselves and how much attention they pay and how much they connect with and engage with in the classroom." (Teacher Interview p. 6)

Mr. King "I think that on one hand they are comfortable because they are surrounded with like-minded people." "I also see it occasionally they are a bit disgruntled because of some of the quality of students around them. They get discouraged about why they got thrown into that mix." (Teacher Interview p. 6)

Mrs. Smith "Well, it's difficult, because these students, at least from my experience have varied home lives, some of which are horrific." "And other students

economically disadvantaged and you know that this is way out for them and they're much easier to engage." (Teacher Interview p. 6)

Mrs. Lamb   "If it's related to something that they're interested in, or they like doing…I think then, if you can relate things …they learn more, they're engaged more." "Yeah, no, I can see that, I could see some of them didn't intend to come here, or like they were, you know…"

Encouraged…?

"Encouraged, encouraged to come here, you know, without their, you know 100%...you know…control..." "I just think that if they just are willing to try and give it their best shot that it will be a really good experience for them." (Teacher Interview pp. 6-7)

Mr. Jackson   "…if we have a lower scoring group coming, engagement's going to be lower, for the simple fact that some of the computer systems on the cars are over their head, and they become reluctant to get involved in it, because they don't understand them." (Teacher Interview p. 7)

Mrs. Andrew   "The fact that I have very sharp students, who are good students, in the sense that they are engaged…They understand the material easily, or they are self-motivated or self-instructed..." "And it runs the whole spectrum down to those people that need an awful lot of assistance, they cannot do much thinking for themselves; they to be prompted every step of the way." (Teacher Interview p. 7)

Mr. Edwards   "Yeah, I do think, I do think that. But it's related to…I'm not sure that it's specific with respect to a vocation. I think it's more specific for their personality and their commitment with respect to a vocation…" …but the ones that are here because they have a strong desire to be in this particular shop are the   ones that…get much more involved, much less difficult to deal with…"   (Teacher Interview p. 7)

Mr. George   "Well I get a good percentage of students who, that want to be prepared. Then I get a percentage of students that are just placed in our school because they don't have high academics…"   "And you see a few of them…that it's a   long process…" "They have to be accountable." (Teacher Interview p. 7)

Mr. King   "Well, for example, in my class, it would be nice if somebody had a fairly decent math aptitude, you know, before they actually come into my class and have to calculate decimals and fractions and solve right triangles and do some trig;" "It would be nice if the students had a fairly decent level of math so they could immediately be engaged in what they're doing instead of being disengaged with the main focus of the shop because they're too

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busy doing remedial types of things before they can think about being engaged in this shop. The main course work, and problem-solving, are things that you can do if you want to be a ****, you have to know those." (Teacher Interview p. 7)

The teachers' identification of students who entered vocational schools with histories of poor academic backgrounds appeared to reflect another trend noted in the research. The trend has been the increase of students with known academic disadvantages who have been encouraged to enter vocational schools. The teachers also noted how the students' home lives and backgrounds may affect student engagement. The mix of students who chose a vocational education with other students who 'ended up' in vocational schools was observed by the teachers. This mix of students was observed as detrimental by the vocational teachers. (**Author's note**: It has been noted by researchers that the ratio of students in vocational schools who have economic and socio-emotional disadvantages may be greater than the ratio of students with the same disadvantages found in academic schools in similar parts of the country.)

The students in the study group also identified how their peers had an affect on their engagement. Students who did not choose the vocational programs they were placed in were sometimes observed as disruptive by the other students. The disruptions occurred because the students without vocational objectives do not appear to take as much advantage of the hands-on learning and independent learning environment available to them. The students in the study group observed their peers who were not involved with the vocational program causing distractions in the classroom because of behavioral problems. Most importantly, almost half of the teachers interviewed stated that when the new vocational students chose the vocational program they appeared more engaged in their learning by the teachers.

The teachers provided numerous additional comments to Question 3. The teachers identified a stake in the learning environment that was affected by the types of students who

entered the vocational programs. The teacher's offered observations about the students and how

engagement was affected by the students' backgrounds and other issues. Mrs. Andrew saw the

vocational population as a 'bell curve'. She believed that although "most people think that we

are getting castoffs from the home schools" (Teacher interview, 8/O, p. 8) her students reflected

a broader mix.

Mr. George was concerned about students as low achievers. He identified how in

previous years he had students with discipline problems and attendance problems; "they didn't

want to come to school…and when they did come to school they were clowns in the shop…"

(Teacher interview, 10/O, p. 8) These students were went back to their home school or dropped

out. However, he believed that in vocational education the students can "all learn at their own

speed." (Teacher interview, 10/O, p. 8) Most importantly, he saw his students as individuals and

this is what the students who are low achievers may need:

> You're not taking a class at each step, and if one of them didn't get it you push
> him along with the other ones, that's what the problem is why we have low
> achievers today. Because they were just herded up like cattle and just pushed
> right through. If it's taken them two weeks to get this one competency or
> whatever, that's what it's going to take. There are no shortcuts. That's why like
> you said; I have kids who cannot multiply. That's the sad part… (Teacher
> interview, 10/0, p. 8)

Mr. Brown identified further the self motivation in the students he observed. He believed

the students in vocational schools may be more inclined to be engaged because of the change in

their learning environment from academic to vocational:

> Well, I mean, its desire. It's motivation, they're self-motivated, you know. That's
> the one thing I see if you're in environment that you hate and you get into an
> environment that the opposite of that then you are motivated to take advantage of
> that to the fullest, you know. You're motivated to go over here and work on this
> project and go over there and work on that project because you've been forced to
> sit in your seat for, you know, six to eight years. So, I mean, that's my theory.
> They love that freedom, and for the most part, although they don't understand
> how… sometimes they don't understand not to take advantage of it, or how to

take advantage of it. For the most part they do well in it. (Teacher interview, 2/N, p. 8)

Mrs. Jones added that the students who first come to the vocational school may struggle the most with engagement. She believed that for some students it "could possibly be the first time they've realized that you have to involve yourself to that level to do anything" (Teacher interview, p. 8). She added that the students may not be assessed academically well enough so that their true potential was not evident. "I think they're so inhibited by their poor social skills, their bad study habits" (Teacher interview, p. 8). The students also carry into the vocational school emotional and academic issues that may have developed in their home school education. Mrs. Jones observed that her students

> will tell you just how horrible their self-esteem is when they come here after leaving that school (home school). You know, they've been told that they're no good; they'll never go anywhere, this type of thing. (Teacher interview, p. 8.)

The common threads for Question 3 developed around the students' academic and socio-emotional backgrounds. The teachers identified similar patterns in the students they taught. However, the common threads did not produce a strong relationship between the students' home/life background and student engagement. The teachers identified a stronger relationship between the students' academic disadvantages and their lack of student engagement. Table 3.10 shows the identification of common threads of teachers' responses to the question:

Table 3-10 Identification Of Common Threads Of Teachers' Response to Question 3

How is engagement affected by the types of students who enter the vocational school?	
	# Of Teachers Responding
Students are more engaged when they chose programs	5 Teachers
Students have history of not working in school	4 Teachers
Students home life/background affect student engagement	2 Teachers
Students affected by poor academic background	5 Teachers
Students affected by types of peers in vocational programs	1 Teachers

The scoring for Question 4 was completed by more overt comments, either positive or negative by the students, heard by the vocational teachers. Higher scores for the teachers' responses were assessed for comments the teachers heard from the students with the most information about the students. The rationale for the scoring method was that the information obtained by the teachers, either positive or negative from the students about their placement in the vocational school, was positive in value because the students' expressions may have provided the teachers with windows into the students' perceptions of the vocational school. The average score (.64) for the teachers' responses indicated that the teachers provided information from the students above what would normally be expected adolescents to verbalize in front of others. The question was developed for the teachers to glean from them information not readily available in other less open-ended questioning techniques. What were the students saying to each other or to the teachers when they entered a new vocational environment? Seven of the teachers responded that the new students verbalized more positive level of engagement (Levels 3 and 4) compared to the lower levels of engagement. The answers were interpretive on the teachers' parts and appeared to require a degree of empathy from the teachers.

Mrs. Jones provided an interpretation of the students who enter the vocational school without an apparent perception of the career path they have selected.

> …not anything that I could generalize they're feeling that this is going to be easier here than it was, and that this is where kids 'like them' go because it's going to be easier and not much is expected of them." "…they do seem to come in with a perception about how the school will be run and so forth." "…I think they pick off a menu and say 'that looks like fun, and I think I wanna do that' without fully knowing the technical aspects… (Teacher Interview 1/O, p. 9)

Mrs. Jones' responses were scored low for Question 1 and Question 2. She had determined student engagement to be teacher driven and the students did not appear engaged

when they entered the vocational school. Engagement took her all year to "get the students on board". (Teacher Interview 1/O, p.4).

Mr. Brown, a new teacher, observed interests on the students' part, but the new students' interests were not very focused on the vocational area he taught.

> ….they all express kind of an excitement or an interest in what's going on, because it's a new or different thing. And they all express an some interest in it, but nothing in particular that I've heard. (Teacher Interview 2/N p. 9)

Other teachers noted how the students identified their learning disabilities to the teachers or that they were potential drop outs from their home schools. Mr. Jackson, a veteran teacher, noticed a difference between students who came to the vocational school because they were failing in their homes schools and students who selected the vocational school for because of their career objectives. Mr. Paul, also a veteran teacher, noted that the students entered the school with preconceptions of how easy the vocational school would be.

Mr. Jackson   "Do you mean like 'I came here to Slow Tech'"? I hear a lot of that from them because they say the academics are watered down and as long as they show up for class they're going to pass and a lot of expression about, 'Well, I was sent here because I was told I'd never graduate from my own high school. So I come up here and they'll get me through.'"

My better students, my higher scoring students, yes, they love it here. (Teacher Interview 7/O, p. 10)

Mr. Paul   "Slow Tech", ah 'I'm not going to college, so I'm just gonna take this', 'I was told that this is easier', I had kids say 'I was told that is easier', like in **** (vocation-(al program), when I taught **** (vocational program), I mean we used to have…I would give homework, you know, to read the book so when you came to in the next day then you could understand why we're doing things. I use to get the feedback "Well, we never do any homework" so…I've experience some of those things." (Teacher Interview 12/O, p. 11)

The previous teachers' responses appeared to indicate that there was a dichotomy of students who entered the vocational programs. The students who did not select the vocational

school because of their career objectives were noted by the teachers as uninterested in the vocational programs.

Mr. King, also a new teacher, found the students liked the vocational environment. However, he also noted that the students provided the teachers with ready information about their learning disabilities as a means to justify not working.

> I really haven't overheard a lot of opinions about how this compares to others….I have heard some comments that they really like it here. I haven't heard anything negative as far as 'I want to go to my home school because it's better'. … some of the comments you get from the tenth graders is 'well I have a learning disability or I have dyslexia or whatever', that's fine learn to work around it, you must read this. (Teacher Interview 3/N, p. 9)

The teachers noticed the students called the vocational school 'Slow Tech'. It was a nickname given to the school years ago. This nickname was also mentioned in the students' interviews. One reason for the nickname given by the students was that the guidance counselors told the students the vocational school was easier.

Mrs. Andrew, who had the most vocational teaching experience of 30 years brought up another dichotomy of the students who enter the vocational school. One type of student was identified as either apathetic or apprehensive. The other type of student was described as more directed in their choice of a vocational education.

> I imagine at first they feel, I would think sometimes they would feel betrayed, that somebody pushed them off into another place. But then after they get here, of course, I think they fit in very well and probably fit in better than they would at their home schools. So their expressions…when they first come here, I think, is either apprehension or some curiosity, other maybe a little bit of apathy…that um… And then they're those that like, in the other question, the amount of thought going into choosing a career. Some of them might be excited about the fact that they're already working on going on to a career rather than just languishing, if you will…where they just think they're taking courses that are not important for them…. (Teacher Interview 8/O, p. 10)

In summary, the expressions made by the students and observed by the vocational teachers about vocational education appeared to extend from apprehension to apathy by students who were very interested in attending the school to students who may have been placed in the school without strong career objectives. The teachers and students identified the nickname of the school as 'Slow Tech'. The nickname represented a view of vocational education as easier by some of the students. The students who saw the school as easier were often also identified by the teachers as students who appeared to have little or no career objectives. These students were also often observed by the teachers and the other students as disruptive with frequent disciplinary problems. The same students were often those who entered the school with academic disadvantages and socio-emotional problems in their backgrounds.

Question 5: What strategies do you use to engage or promote the students in your curriculum?

Question 5 was scored similar to the scoring for Question 1, 'What does the term student engagement mean to you as a teacher'. Teaching strategies which required little or no involvement from the students were scored less on the matrix than the teaching strategies which required more involvement from the students. Interactive teaching strategies required a balanced input between the teachers and the students. Teaching strategies offered by the teachers were bolded on the matrix for the development of common threads between the interview questions. The breakdown of the number of teachers using certain teaching strategies is provided in Table 3.11.

Table 3-11 The Breakdown of the Teachers' Strategies Of Student Engagement

The Breakdown of The Teachers' Strategies Of Student Engagement	
Strategies	# of Teachers
'Teacher initiated' strategies were made by experienced teachers	15
'Teacher initiated' strategies were made by new teachers	12
Older teachers expressed 'student initiated' strategies	12
Newer teachers expressed 'student initiated' strategies	6
Older teachers expressed 'teacher/student interaction' strategies	6
Newer teachers expressed 'teacher/student interaction' strategies	5

Fifteen 'teacher initiated strategies were used by experienced, older teachers and nine 'teacher initiated' strategies were used by new teachers. Examples of these strategies were: "Modeling the type of behavior that I want" (Teacher interview 1/O, p.12); hear their side of it; be consistent; present my side; mix up delivery methods; get them interested; show them; inspire them; go through training; tell them the more they learn; the better off they'll be; bring that to class; let them see; make them aware; lay out a plan; tell them what they are going to learn; work with all types of students; give them; and always encourage. (Teacher interview, p.12) New teachers also employed similar strategies such as, "I'm discussing" (Teacher interview 9/N, p.12); use books; research the internet for information; provide little blocks of instruction; take information down to their level; and bring the students up (Teacher interview, p.12).

Eleven of the teachers' comments were more interactive between the teacher and the students. The eleven interactive teaching strategies were divided almost evenly between the old and new teachers. The interactive teaching strategies from the new teachers included the following: Relate to something; bring up different interests in class; get their opinion; and find some area of agreement. The older teachers reached the students through stronger interpersonal methods such as let them know you're sincere; we discuss; get involved personally; and involve them in the decision-making.

Twenty teachers' comments were identified as student initiated teaching strategies. The older teachers provided 12 student-initiated teaching strategies and the new teachers provided the remainder. Examples of the student initiated teaching strategies included the following: Each one has different interests; working independently, students understand; they love to work on their own stuff; for them to want to learn; hands-on; they're responsible for their tools; and utilize their time (Teacher interview, Common threads, p. 2).

The initial analysis of the responses indicated that the number of older teachers and new teachers who used teacher initiated strategies was similar. However, three of the older teachers, Mrs. Jones, Mrs. Andrew, and Mr. Arnold, who had a moderate to large number of responses for teacher initiated strategies, did not provide any student initiated strategies and a few interactive strategies. This was an unexpected result. Three of the new teachers, Mr. King, Mrs. Smith, and Mr. Edwards, who were expected to have mostly teacher initiated strategies for this question, did provide a balance in their responses between the teacher initiated and student initiated strategies. Three older teachers, Mr. Douglas, Mr. Jackson, and Mr. Paul had more student initiated strategies and none or one teacher initiated strategies. The breakdown of the teachers' strategies of student engagement listed in Table 3.12.

Table 3-12 The Breakdown of the Teachers' Strategies of Student Engagement

Breakdown Of Teachers Strategies Of Student Engagement			
Teachers Name	Teacher Initiated	Interactive	Student Initiated
1/O Jones	5	2	0
2/N Brown	1	2	1
3/N King	4	0	2
4/N Smith	2	0	2
5/O Douglas	1	0	4
6/N Lamb	2	0	1
7/O Jackson	0	2	3
8/O Andrew	2	0	0
9/N Edwards	3	3	2
10/O George	2	0	2
11/O Arnold	4	2	0

Breakdown Of Teachers Strategies Of Student Engagement			
Teachers Name	Teacher Initiated	Interactive	Student Initiated
12/O Paul	1	0	3
	27	11	20
TOTAL	15/O 12/N	6/O 5/N	12/0 8/N

According to the research student engagement was strongly affected by teacher quality. The teachers' teaching strategies and their teaching philosophy were identified components of teaching quality. The teachers' cumulative score for the Teacher Interview on student engagement was compared Question 5 pertaining to teaching strategies they identified. A comparison between Question 5 and the total score for each teacher in Teacher Interview provided mixed results. One result was that the teachers who did not use many student-initiated teaching strategies scored lower for the Teacher Interview. A second result was based on the teachers' experience in the classroom. There was no identifiable correlation or relationship between experience in teaching and the use of higher level teaching strategies or the teachers' cumulative score for the Teacher Interview in this study. It was identified that regardless of teaching experience, the teachers that identified student initiated strategies observed their students as more engaged throughout the Teacher Interview and obtained a higher cumulative scored in the Teacher Interview.

The strongest comparison occurred between the teachers' definitions of student engagement in Question 1 and the results in Question 5. Except for two teachers, Mr. Brown and Mr. Douglas, the teachers received similar scores (within 1 point up or down) for Question 1 'What does the term student engagement mean to you as a teacher?' and Question 5 'What strategies do you use to engage or promote the students in your curriculum? Mr. Brown a new teacher score was the lowest for the first question. He mixed all three types of teaching strategies to engage the students and used the interactive strategies used most. This method of

teaching could account for his lower score in the first question. He was a new teacher and did not use many student initiated teaching strategies. Therefore, he may not have observed student initiated engagement as much in his students. Mr. Douglas, a veteran teacher, applied student initiated strategies often. However, he scored in the lower range for Question 1. His definition of student engagement was "Oh, how I interact with the students and the students interact with me" (Teacher Interview 5/0, p. 2). He may not have provided a complete answer for his definition of student engagement. This may have accounted for the deviation from the other teachers' results.

The following identification of teachers provided their cumulative scores for the responses in the Teacher Interview. The three older teachers, Mrs. Jones (.54), Mrs. Andrew (.66), and Mr. Arnold (.45), who provided the most teacher initiated teaching strategies without any student initiated teaching strategies and few interactive teaching strategies, also had their responses scored the lowest for the Teachers' Interview. The five new teachers, Mr. Brown (.70), Mr. King (.79), Mrs. Smith (.70), Mrs. Lamb (.79), and Mr. Edwards (.83), who were expected to have mostly teacher initiated strategies, provided a balance between the teacher initiated strategies, interactive strategies, and student initiated strategies. This was an expected result because teaching strategies that are student initiated were considered a higher level of student engagement for the purposes of the study. The five new teachers' responses were scored in the higher range in the Teacher Interview. Their strong identification of student engagement was evident in these scores, and their mixed teaching strategies may have led them to observe student engagement more in their classrooms.

Mr. Edwards was a first year vocational teacher with no secondary teaching. The five new teachers also had responses scored higher than the average for the Teachers' Interview.

Three older teachers, Mr. Douglas (.87), Mr. Jackson (.91), and Mr. Paul (.79), who provided primarily student initiated teaching strategies and a few interactive teaching strategies, had responses which were given the highest scores for the Teachers' Interview. This was an expected result. Experienced teachers would most likely be thought to use more student initiated teaching strategies to promote student engagement. Mr. George (.66) provided teaching strategies that were balance, and his score for the Teachers' Interview was lower. This was an expected result because Mr. George indicated he used teacher initiated strategies fairly equal to student initiated strategies. This result could account for the lower score for student engagement he attained throughout the interview.

Question 6: Do you believe the vocational curricula promote or detract from student engagement?

The question was scored similar to the other questions in the Teacher Interview. If the teacher indicated the vocational curricula greatly detracted from student engagement a low score was given. A high score resulted for the teacher who indicated that the vocational curricula greatly enhanced student engagement. The purpose of the question was to determine what value the vocational teachers placed on vocational education curriculum in student engagement processes. The teachers' responses to Question 6 are provided in Table 3.13. Additional comments were categorized from the teachers' responses.

Table 3-13 Teachers' Responses To Question 6

Teachers' Responses to Question 6	
Vocational Curricula promote student engagement	12 Teachers
Additional Information	
Practical application/hands-on training	5 Teachers
Future employment	4 Teachers
Individualized instruction (independent)	2 Teachers
Poor relationship between academic/vocational	2 Teachers

Question 6 produced the highest average score per question of the questions in the Teacher Interview. The teachers also received their highest individual score per question for their responses on the matrix for Question 6. The teachers' responses included issues of teaching vocational skills and the socio-emotional issues of the students. Five of the teachers mentioned hands-on training in the vocational classrooms. Four teachers identified the issue of the students' future employment. Two teachers identified individualized instruction and independent learning. Two teachers also noted a poor relationship between the academic and vocational programs in the school. Many of the teachers provided further identification of what student engagement meant to them and what they perceived a vocational education meant to the students. The teachers' comments were not broken down to further analyze their content. Instead, as much as possible, the teachers' comments were left intact:

Mrs. Jones: "I think it definitely promotes it more so than a traditional academic setting. Once we get the kids on board, I always that oftentimes the sophomore is the most difficult because you're just getting them on board, just getting them used to being an independent-type learner, staying on task, that type of thing, instead of working a group setting. Once you do get them on board, I mean the potential, what you can do with the kids once they're fully is unbelievable." (Teacher Interview, 1/O, p. 13)

Mr. Brown: "For the most part it promotes that, the slight exception is that there's a lot of disconnectedness between   the different classrooms, between the academic and vocational shops…but it's still, as opposed to high school where it's 100% academic, you know, it promotes it." (Teacher Interview, 2/N, p. 13)

Mr. King: "If somebody is good at something you have to focus on it, that's how were engaged. People are winners, you know Babe Ruth had one swing and concentrate on that swing….what you're good at you really have to sharpen that everything else is going to have to follow...To answer the question, I think vocational education is important because they are some people who can't, don't have a complete rounded wheel they are little lop-sided. I think that you've got to focus on their strengths…"
               "…there's a lot of students who need what the encouragement of being good at one thing will get them. When they walk in here they don't have

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to worry about, you know their personal problems…"   (Teacher Interview, 3/N, p. 13)

Mrs. Smith: "I think the vocational curricula promote engagement. Students always want to know, 'Can I use this?' 'How's this going to affect my life, how can I use this in my real life?' And in the vocational education you can show them. In vocational education you can see the skills. And although they're sometimes afraid to try, they can see that what they're learning has some practical application in the real world. So I think that's a lot going for us in engaging students and getting them interested in learning…especially if they have actually chosen the shop they want to be in." (Teacher Interview, 4/N, p. 13)

Mr. Douglas: "I think it promotes, I really do, because this is practical; this is what they're going to do for a livelihood. They take a big interest, especially, if they know they can make money. If they could get paid over here, they'd work even harder, that's what they all say…So, well, you have to learn first. So it does promote. The fact that someday they are going to get a job. And then also, the seniors are allowed to go out on Co-op, and I have several of them out already, making good money and everything. Not only that, when they get out on Co-op, if they're doing a good job there, usually the place will hire them, they don't want them to leave. Because it's hard to find good help. They get to go out and make money too." (Teacher Interview, 5/O, p. 14)

Mrs. Lamb: "… I mean, you know, it seems like they all promote, you know, that they're actually engage in what they're going to be doing. Dental Medical wear uniforms, and Cosmetology…so I would definitely say it promotes."
(Teacher Interview, 6/N, p. 14)

Mr. Jackson: "They love it here. Again, they still say that the academic end is watered down, there's no real; challenge there. But they're so engrossed in the
 shop itself, that, you know, they're pushing themselves here. They're actually going above where I am teaching, they're going further…it works well for them." (Teacher Interview, 7/O, p. 14)

Mrs. Andrew: "If I'm using the definition for engagement as being something that's action, that's an action verb, then obviously the vocational curricula is important to have action in the room. A lot the academic subjects sort of
 lend themselves to lecture or discussion and things, but when you've somebody actually performing a task, and for some people performing is a lot easier than to memorize, and with repetition, with using that skill and repetition of that skill, you know, perhaps its…that's obviously more engagement." (Teacher Interview, 8/O, p. 15)

Mr. Edwards: "I think that it serves the students well, I don't think every one's cut out to go on to a postsecondary education…not every one's cut out to be doctors, lawyers, teachers…or whatever… and I think that there's definitely a place for that." (Teacher Interview, 9/N, p. 15)

Mr. George: "I believe it promotes it. We're still going to need construction workers, we going to need cosmetology people, we need dental, we need medical. People must learn the trades; we're always going to have that field." "So I think a vocational school is very important." (Teacher Interview, 10/O, p. 15)

Mr. Arnold: "I would say yes our curriculum engages students in their trades. Do we engage them socially? Do we engage them individually? There's a lot engagement. Yeah, I would that we engage them." (Teacher Interview, 11/O, p. 15)

Mr. Paul: "I think the standard competency-based curriculum for vocational education *does* engage the student…first of all if you pick up on it you can move through it. And if you move through it, ultimately at the end, you can get on Co-Op and gain employment." (Teacher Interview, 12/O, p. 15)

Five of the issues identified by the teachers as important issues about vocational education were issues also identified by the students. The first issue was the watered now academics found in the vocational school. In the students first interview a few of them mentioned 'Slow Tech' or that they were encouraged to attend the vocational school because it was easier. Some students perceived the vocational school as a means to get by academically or an alternative to dropping out of high school. The second issue the teachers identified was the hands-on skills in the vocational classrooms. The students mentioned this as primary reasons they chose to attend the vocational school. Many of the students stated that they learned better by physically performing the skills rather than by reading or writing the assignments. The third issue dealt with the future employment of the students. Both the teachers and the students gave future employment as a reason for the students to attend the vocational school. The fourth issue identified was the students' socio-emotional backgrounds. Mr. King identified that the students

were not "complete rounded wheel[s] they are little lop-sided. I think that you've got to focus on their strengths…""…there's a lot of students who need what the encouragement of being good at one thing will get them." (Teacher Interview, 3/N, p. 13) Many of the students identified that they struggled socially as well as academically in their home schools. The fifth reason was the learning environment of the vocational classroom. The teachers identified the vocational learning as being very active. Vocational curricula promoted independent learning and also used group seating in the classrooms. The students identified how the learning environment of the vocational classroom was more suited to their learning styles. The students clearly mentioned the active roles they had in the vocational classroom compared to their former academic classrooms. The students also stated that they preferred the independent learning and group seating available to them in the vocational classroom.

Question 6 had numerous additional comments from the teachers. The teachers identified how they often had numerous activities for the students simultaneously occurring in the vocational classrooms. As noted earlier, vocational education is competency-based. Mrs. Smith identified the dilemma vocational teachers faced in the classrooms with diverse activities:

> I have three different levels going on at the same time in a two hour period. So, two-thirds of the time my students have to be working independently on their assignments. In their sophomore year they find it difficult to direct themselves, to learn those independent skills. And that's difficult to for me because I see that they need more guidance then they're getting. So on one side it's hard for them because they've never learned to that, they've been spoon-fed all these years up until they get to vocational education. On the other side, the independent learning really is a good match for these kids, because they want to be in charge of their own destiny. And in many, many cases, I find that these students are much more adult-like than their counterparts in an academic school. (Teacher Interview, 4/N, p. 15)

Mrs. Smith also mentioned issues which have been identified in the research to place many of the vocational students at risk. She believed that vocational education could meet the needs of

the students with disadvantaged socio-emotional backgrounds which led to economic and

educational disadvantages for them.

> Many parents that are on drugs or alcohol, or just physically are tired of fighting with these kids, and so they're really in charge of their own lives. There are many seniors who are emancipated, so to get up and come to school is all on them. So these are very difficult issues, and they also may have a lot more responsibilities at home. They also are economically disadvantaged so if they want any kind of money they need to work, so homework really isn't an option. Those students are used to taking care of themselves, so the independent work usually means they are much more in control and more responsible for their learning. So if they take the responsibility seriously, they're not on drugs or too traumatized by their home life, they actually are more engaged because they are responsible and they see how directly it's going to impact them and their future economic life. (Teacher Interview, 4/N, p. 15)

The students did not mention some of the previous issues in their interviews. However,

the students' permanent records contained data which supported that the disadvantaged socio-

emotional issues were part of their lives. As noted earlier, most of the students in the study

group were from single parent homes. A few of the students had some chronic absenteeism and

truancy. Many of the students had documented serious behavioral problems that let to school

suspensions. All of the students, except one, were classified as economically disadvantaged.

Question 7:   What specific qualities in the students' environments promote student learning in vocational programs; for example, the teacher, the competency-based education, the individualized instruction, hand-on learning, etc.?

Question 7 was presented to the teachers to further identify which specific qualities in the

students' environment promote learning. The term student learning was used instead of student

engagement to encourage the teachers to focus on the specific qualities in the room that promotes

student learning. The qualities identified were analyzed for their potential to promote student

engagement. The teachers' responses to Question 7 were not applied to a matrix. The teachers'

responses to Question 7 were group together. The grouping of responses appears in Table3.14.

Table 3-14 The teachers' responses to Question 7

What specific qualities in the students' environments promote student learning in vocational programs; for example, the teacher, the competency-based education, the individualized instruction, hand-on learning, etc.?	
Responses	*# of Teachers*
Hands-on learning	9
Teacher quality	4
Individualized instruction with teacher	5
Competency-based instruction	1
Unstructured environment	1
Small class size	1

The teachers' responses to Question 7 were categorized. The teachers' names and years of experience were placed next to their responses.

#	Name	Comment (In the order they appeared in the interview
Teachers Names, Years of Experience and Comments		
1/O	Mrs. Jones	Teacher quality
2/N	Mr. Brown	Hands-on learning, unstructured environment
3/N	Mr. King	Hands-on learning, individual teacher-student instruction
4/N	Mrs. Smith	Practical application of skills, independent learning
5/O	Mr. Douglas	Teacher quality, individual teacher-student hands-on learning
6/N	Mrs. Lamb	Individual teacher-student instruction, smaller class size, hands-on Learning
7/O	Mr. Jackson	Hands-on learning individualized instruction
8/O	Mrs. Andrew	Teacher, competency-based instruction, hands-on learning
9/N	Mr. Edwards	Hands-on learning, individual student-teacher instruction
10/O	Mr. George	Hands-on learning
11/O	Mr. Arnold	Teacher quality
12/O	Mr. Paul	No answer

The teachers identified hands-on learning most frequently as the quality which promoted student learning in vocational education. Mr. Brown, a new teacher, made the observation that hands on learning itself was not the specific quality, but more the unstructured learning environment hands-on learning was associated with.

> My opinion is that the hand-on learning and not necessarily the fact that they getting their hands into some **** (shop work) in my case, but the fact that that requires a more unstructured class, you know. And actually I think it's the unstructured environment that promotes their learning. (Teacher Interview 2/N, p.16)

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Mr. Brown went on to add that he believed the students responded to the unstructured learning environment because they have not previously responded well to structure and discipline. Mr. Douglas, an experienced teacher, identified how hands on learning may promote students to read more.

> If they know what was read not always reinforces it. Once they've read the book, then go out and do it, and come back and read the book again…and more if they see a good video on it too, which I have many of them. They understand it and they're talking to the video, believe it or not, while... "Yeah, I did that...that's the way I done it…that's the way I did it (Teacher Interview 5/O, p.16)

The teachers also identified hands on learning as part of individualized instruction. Mr. Jackson, an experienced teacher, compared hands on learning with the lower scoring students and the higher ones.

> Hands-on learning is very, very good. Again, the lower-scoring students tend to want to see things, feel things…And even the higher students, they still want to feel it. So, again, I use a lot of hands-on. Individualized instruction…I start the ball rolling but, again, it's determined by the student, how far they take it. I have some students that, if I say a computer problem, they right away want to go the whole way clear down to the code and diagnosis….Others, are just happy at solving or figuring out what code it has. 'That's enough; I'll just tell him that.' (Teacher Interview 7/O, p.16)

Teacher quality was another identified aspect of the students' environments in vocational schools. The teachers' comments included aspects of teacher quality previously identified in the research. The aspects of teacher quality identified in the research and also by the teacher participants included teacher approachableness; teacher interests in the students; and teacher empathy for the students. Some teachers described their roles as ones who orchestrated different students completing numerous tasks at any one time. Other teachers focused on the individual student to teacher relationships. They viewed those relationships as very important in order to reach the students. Mr. Douglas provided an example of this idea.

I would say the contact between the instructor and student, they learn more. You can talk to them all day in the theory room, they can read, let them see movies, but until you get out on that job and work with them one on one, that's when they really learn. Seriously." "I mean everything supports it. The one on one the instructor is what really works with that teaches him. (Teacher Interview 5/O, p.16)

Mr. King, a new teacher, identified how teachers were capable of student assessments that would enable teachers to empathize with whether the students were capable of learning.

There's some personal things, there's a handful of people, I can tell when they walk in the room what there night was, like if they got yelled at or what their parents did, I can see it in their eyes, like a red band right across their face. Once, and you can't get them out of that and they're going to sit there and have little powwows with other kids and bring them down a little bit in hope of bringing themselves up…that same group of kids…when they come in and have a good few days its like a completely different person, but once they get down to that level, there are about six or eight of them, there's nothing really you can do… (Teacher Interview 3/N, p.17)

Mr. George provided an example of the empathy the teachers may need in order to instruct the students. The students' home lives were brought out as a primary reason why the students were not able to learn. This idea was supported in the research. Disadvantaged students, economically, socially, or educationally were identified as having difficulty learning because they did not have the same family structure and role models other students had.

The home life is whole other issue. Like when we were growing up our parents instilled in us work habits. Today it's different. So I go and try to take a kid, tenth grade, and I've got to try to teach him just plane work habits that should have been taught from the parents. And today, as a matter of fact, this year I asked my students how many are in a two-family home and only three kids… (Teacher Interview 10/O, p.17)

However, one on one instruction and teacher quality were also determined to be most attainable in the smaller classes by the teachers interviewed. The smaller class sizes with one on one instruction were also considered beneficial to the slower students.

Like I would say the um, either the one-on-one, you know, interaction which is good." "I was saying with the smaller class size…" "The one on one…It's easier to give one on one instruction to the like some of the slower students, you know, and I think, that's good because some of them need that. If you sit with them, they'll actually (inaudible) feel motivated, that, you know, that you're actually helping them. You're helping them, you know, that they want to learn. And I think that they're a little more motivated. So, I think that's good. And I also think that the hands-on too is good…'cause then they actually apply what they learn. You know, if you just sit there a lecture them, you know, that's it, then you can forget it, they're not going to remember it. So, if they actually do the hands-on, you know, learning…you know, that kind of proves…you know shows that they, you know mastering what they're learning. (Teacher Interview 6/N, p.16)

Question 8: What do you think the students say when they first enter a vocational program?

Question 8 was designed promote the validation of the teachers' responses to the previous questions, especially Question 2 'Do the students choosing a vocational career appear to be engaged in their learning?'. It was planned that the teachers' responses could provide a window into the thoughts of the students as the students made the transition to the vocational school. The teachers' responses were not applied to a matrix for the qualities of student engagement.

The analysis of the teachers' responses for this question produced four categories of observations of the new vocational students by the teachers In the first observations the teachers made were that some students believed the vocational school was going to be "fun", "easier than their home school", and "think its playtime". Second, the teachers observed that some students were "surprised and disappointed" because it was easier, and "overwhelmed, excited". The third observations the teachers made dealt with the stigma of the school for "dummies"; "the students came for the wrong reasons think its playtime", although they were interested in the programs and equipment. The fourth observations the teachers made focused on the students "high expectation for training", "awesome things (equipment), "learning a trade", "not going to be

sitting all day but forced to perform", and "entering the workforce early". The last observations by the teachers centered on how the students felt about changing schools. The common threads of the previous comments were analyzed and fell into the following four categories.

- Easier than academic school: 6 teachers
- Excited   2 teachers
- Unstructured environment   1 teacher
- Small class size   1 teacher

The teachers' comments to Question 8 appeared to be empathetic toward the students who made the transitions from their home schools. Mrs. Jones, Mrs. Lamb, Mr. Edwards, and Mr. George provided examples how the students thought the vocational school would be easier for them than their home school. Mrs. Jones and Mr. George have many years of vocational teaching experience. Mrs. Lamb and Mr. Edwards were in their first and second years respectively of teaching at the vocational school.

Mrs. Jones: "I think that they're surprised…what actually goes on in the classroom, you know, how the day is…For many of them I think it's disappointing that it isn't going to be the way they hoped would be. Which would be what? A little bit easier and….I think from their I, we just try to win them over, try to get them to buy into what's here and to see it through, and do their best, that type of thing" (p. 18).

Mrs. Lamb: "Oh, I think…they might think that it's like, everything is going to be easy…you know, it's a little bit easy, and that they can just get by. And you know, just do whatever they can…you know, and they'll pass…But I think once they get in here, you know, that they really have to work for it. It's not as easy as they think…And, but I also think that think they're going to learn something too. That they want to learn a specific trade or skill, and I think they're excited about that too. So I think that's kind of neat, that they actually get to do, whereas regular high school it's just…you know, they don't have this. That they actually get to do something that they like doing and apply it, you know, do hands-on and that kind of stuff. So I think, you know, I think it's…(inaudible) exciting exactly…right, right." "…like once they get here I think that some of them think that isn't what they expected or what they thought it was going to be like, or you know, it's harder…or too much work…or like it's different you know…from…" (p. 18).

Mr. Edwards: "This may not be popular, but I think some of the students come for the wrong reason. I think some of them, at least what I've seen, some of the students come and they think its playtime. And…I think there are things that should be done to…with that in mind I think there's that could be done to prevent that…" (p. 19).

Mr. George: "I think what they first think is "it's going to be fun" when they come to a vocational school. And then with my program, after they get into it, they see that there's a lot of work that has to be done. There's a lot of projects that must be completed by a Sophomore, Junior, or a Senior. And if they can complete those project and move on to their Junior project or Senior project and they can start to work with (inaudible) and fancy work. So it's like dangler out there for them to shoot for. And believe it or not it works" (p. 19).

Mr. Brown provided an indicated how the students were "overwhelmed. They look like deer in the headlights". Mr. Arnold identified the students' anxiety when they change schools.

I sure there's a lot of anxiety when they come in, only because they've left their friends and their home school, and it's a whole different world for them and everything they've heard about the place…So I think when they first come in they're a little apprehensive, I think some of them are ready to leave the door as soon as they come in… But they usually warm up to it… (p. 19).

Mr. Paul also identified the change in schools as a decision by the students to enter the workforce.

It's a change. I mean for most of the kids they have their home schools and they're connected to a lot of friends and things there. But I think, that when they do make the decision to come to Vo-Tech that they are basically making a decision to enter into the workforce as soon as they possibly can with a trained skill…I would think that's why they would come to Vo-Tech (p. 19).

Mrs. Smith brought up the stigma that was identified in the previous students' interviews and teachers' responses about the vocational school. The students appeared to be caught between choosing a school for "dummies" and their focus on a high school education that would provide them with career training.

They deal with the stigma of vocational education being for dummies. And they also with this is a practical exploration of their career. That's kindda difficult. And then…repeat the question so I make sure I'm on track." "I think they're

saying this is much easier than an academic, I don't have to sit all the time, I can learn something in a vocational aspect, whether it be to do hair or get ready to be a nurse, or to work in an office or to lay block even. So I think they come in with very high expectations that they are going to be training for the workforce. And as much as they may fight some of that, that's what they really want, and that's why they're here. To actually be trained so that they can go out and get a <u>good</u> job, that pays <u>good</u> money without having to go to college (p.18).

From the teachers' observations what appeared to occur was how surprised the students were about what the vocational school entailed. It was not going to be easier, or playtime. Some of the students were interested in the equipment and other aspects of the programs. These student responses reflected their probable kinetic learning styles. The students made a change from their home schools often giving up their peer relationships even though they may not have had realistic views of the vocational school. The questions developed as to why kinetic learning was viewed as 'playtime' and 'easier' by the students compared with other methods of learning found in their home schools? Did the students who select vocational education do so because of their strong urges to learn through doing versus the academic method of only reading and writing? Why did none of the teachers respond to this question that they heard the students say they were encouraged to come to develop their job skills and identify a career path?

Question 9:   Do you want to add anything?

Question 9 provided an opportunity for the teachers to express thoughts about any and all issues from the interviews or other topics. The responses were not applied to a matrix for the qualities of student engagement. The responses were considered for 'common threads' that flowed through the responses and perhaps were found possibly identified in the other questions.

The teachers' responses were as follows in a brief, outline form. (Use of a table or figure here did not provide a suitable method for the syntax.)

Mrs. Jones: "Identified the importance of selection of appropriate students; Noted many students' had poor self-esteem, promoted work habits in the

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students; Viewed the students holistically; Discussed importance of interactions with students."

Mr. Brown: "Noted student engagement dependant on teacher; Discussed the importance of interactions with students."

Mr. King: "Stated students grew up too fast; Viewed students holistically; Discussed the importance of interactions with students."

Mrs. Smith: "Identified the importance of selection of appropriate students; Identified how often students with problems go to the vocational school."

Mr. Douglas: "Encouraged students to take responsibility for their learning; Discussed interactions with students."

Mrs. Lamb: "Liked teaching vocational program; Identified how the students gained with vocational training; Discussed interactions with students."

Mr. Jackson: "Liked teaching in vocational school;. Liked being with the kids; Handled discipline in house (classroom); Viewed the students holistically. Discussed interactions with students."

Mrs. Andrew: "Viewed students holistically."

Mr. Edwards: "Identified the importance of selection of appropriate students; Identified the vocational program alternative education pathway for the students."

Mr. George: "Identified how students gain vocational training; Discussed interactions with students."

Mr. Arnold: "Identified importance of teacher quality; Discussed interactions with students; Viewed students holistically; Identified how students gain with vocational training."

Mr. Paul: "Importance of selection of appropriate students; Identified how vocational program alternative education pathway; Viewed students holistically."

As noted, the holistic view of their students was identified by six teachers. Their

comments are further identified in the following.

Mrs. Jones: "I would hope the habits that I am trying to instill in them. . . on management and consistency and interest and that type of thing spill

over in to what else they're doing. And plus I think that we do have a fair number of academic teachers who kind of teach to the whole student as we the vocational teachers do. You know, don't really teach to the particular subject area, we teach the whole student. I believe that a lot of that's going on here. More like you'd see in the elementary section, I think you'd see that" (p. 20).

Mr. Jackson: "They like working we me in the shop, they have a lot of fun there…I tease them a lot about different things they do, but they do understand that they've got to follow the rules. And that's what they all tell me. Any of my seniors will tell you, 'Follow the rules, and we can do a lot of work. Don't follow the rules, and we do a lot of paper work.' And I have a mixture. I have some of, you know; at one time I have my sophomores worked alone; my juniors and seniors together.   That worked real well for me. The seniors, some of them knew some of the sophomores coming in, so they already had the warning. So I asked them what they know about me when they come in the first day. You get some interesting comments at times…but….it works." (p. 21)

Mrs. Andrew: "But a lot of students, … a lot of kids that have trouble…they give up. They just say "I can't do this" and they close themselves off. So how do we empower them, to, or to let them know, no matter what, you still need to know this…?" (p. 21)

Mr. Arnold: "I know that we don't want to characterize our students certainly…because we have such a variety of students   here…we have students that really are involved in the trade and want to learn it, and a number of students that aren't going to survive in the trade and ah you still have to turn them into human beings…you still have to turn them into responsible human beings. So if you're going to teach strictly **** (vocational program) than you're going to loose, the program will be a loss for many students who go through the program. There's a poem, I probably can't remember it, but it's a tribute to the shop teacher; it's a poem about a shop teacher and while other men build our skyscrapers, this man builds character. In his own way, he turns boys into men. And that's basically what I try to do. I try to   help these kids mature and show them some values." (p. 22)

How much do you think the 'at-risk' concept is an important part of the population here?

Mr. Paul: "Well, it is an important part, but I think there's a lot of economical pressure on families nowadays…what happens that I noticed is that kids drive. They drive so that they can go to work…and the work seems to…you know, take up a lot time for a teenager between social, work and school. And school seems to be the thing that suffers…so…I'm not

so sure if jobs for students is all that good…some have hardships and economic situations you know, they have no other choice." (p.24)

Another response made by many of the teachers was the selection process or the admission policy of the students who attended the vocational school. The selection of the students was referred to by the teachers in earlier questions and also by the students in their interviews. According to the teachers' responses, the selection of the students appeared to strongly affect the vocational programs activities, the quality of learning for the other students in the vocational programs, and the students who may not be appropriately placed. Another aspect of student selection was the effect appropriate student selection had on the enrollment in the vocational school. Questions developed from the teachers' responses to this question. Did enrollment issues drive decisions about the students' placements in the vocational schools? The question of whether the all of the potential vocational students received adequate career guidance in the home schools lead to two further questions. If the potential vocational students received adequate career guidance were they permitted to attend the vocational school? If the potential vocational students did not receive adequate career guidance which may have encouraged them to select a vocational education, why didn't they receive this guidance from their home schools? The following comments by the teachers addressed some of the previous questions.

Mrs. Jones: "Realistically, I know that if were really select the most appropriate to enter these programs, that we would all be so limited in our student enrollment. So that's not a realistic approach, I don't believe…but it's ironic that you bring it up because I think this time of year (February) you come to the place where you are thinking about this and doing everything you can to engage each of the students and to make the classes meaningful to them and it is a daily struggle."

Mrs. Smith: "I would like to see the students really have a better understanding of what it is their going into when they choose a particular shop. A five-minute visit in the shop is not enough to evaluate which shop."(p. 20)

> [t]hey need to be screened because I think there are some students that come to Vo-Tech because they hear it's easy and they want to escape. And I don't know about you, but I don't want students here because they think it's easy or because it's an escape from their home school. I would rather have students here that want to be here because they want learn a vocation." (p. 20)

Mrs. Smith added comments about the quality of the students in the vocational programs and how their disinterest in the programs affects the other students.

> [t]he ones that are getting into trouble simply because that's what fun for them, I rather see those just go somewhere else. I'd love to see those kids turn themselves around, I'd love to help turn them around, but with drugs in the way there's not a whole lot I can do. And if they're not motivated in my shop because they want to be here and they want to learn new skills, I can't cram them down their throat. And all they do is hold back the people that actually want to learn…
> (p. 20)

Mrs. Smith also indicated that the type of recruitment methods used to promote the vocational school to prospective ninth graders in the county may have been part of the reason why some academically disadvantaged students were placed in vocational schools.

> I've been on some recruiting expeditions, and its very sad to here the person doing the recruiting tell people, 'you know if you're a C-student and you're not quite making it, you'd better go to Vo-Tech'. Because, and the hidden message is that 'losers go Vo-Tech because we can through high school that way'. I would rather the recruiter be saying "you know what? We want to prepare you just as much as you home school does, we want to prepare you for college. But guess what? While we're preparing you for college, instead of taking these valuable courses, like music and art, and fun things like child care, we'd like to prepare you for a career. And its okay if you don't go into that career, but you have explored it in your high school years and got a good leg up on anybody else going into that profession. If you want to stop your education at the end of your vocational high school training, that's fine, we'd rather see you go to college, we'd rather see everybody further their education, but let us give you some skills to make that transition into the real world a little easier. (pp. 20-21)

Mr. Edwards, explained how the proper vocational program placement was important for the students and the other students in the program.

> I think that the vocational, for the students that really care about the vocation that they entered into. For the students that really care about that, the distractions with

the students that come in that have either been thrown into a class, it's their second or third choice, because another class is full, or they just weren't prepared, the other students aren't with respect to what they're to see when they get here….that's a distraction for those that are really interested in learning. So I think that on the front end of it, there are several things that could be done.

I think there should be an interview process with every student. Even though it would be cumbersome…some type of interview process. Three, I think that every student going to a vocational school, there should be an automatic…after, a period, a week, two weeks for them, you can't that far obviously, that they make a decision that they're, they intend (inaudible) for this one week, five days and (inaudible) have the ability then to withdraw and go back to the home school. That may be a very difficult think to do, to manage, but I think there's a time that someone has to commit to saying this is what I really want to do. And then maybe, a time there's a secondary period too, the need to, beginning of the second semester or some point, time they have an option of going back. Because it appears to me, that once they make the decision to come that you have to jump through hoops for them to leave. Well, if you want to leave you're not going to give everything that you have, you're just going to detract from the learning environment that's important to those that really care. (pp. 21-22)

The issues of proper recruitment of students, the quality of students in the vocational programs, and how the improper recruitment and placements of students affected the other students in vocational schools was noted throughout the teachers' interviews. Similar comments from the students about recruitment and the lack of realistic knowledge about vocational program, and the placement of students in second choice vocational programs provided a common thread linking the students' and teachers' responses in their interviews.

The other areas of teachers' concerns for Question 9 were about the students' self-esteem issues and their work habits, which included their abilities to work with each other in the vocational classrooms.   Mrs. Jones mentioned students who enter the vocational school with low self-esteem and the process it took for her to reach the students to encourage their success.

It is how they feel when they leave there, and oftentimes, when they come here they do eventually meet with success because they start coming to school more, they'll a little bit more happy, relaxed and open and receptive…So in spite of themselves they start to retain more, and they get better grades, and just a lot of positive things start happening for them that I see. And that has to be the one

particular group that I think "Wow". Over the last couple years, I'm starting to get more kids from ****…same situation, horrible records there, they just come here with absolutely no self-esteem or feeling successful in any way. And by and large, they kinda do come on board eventually…" (p. 20)

Mr. Douglas, the oldest teacher in the study group, found his students used to complain about personal issues. He used a technique to remind them about the goals of education rather than encouraging the students to use excuses for themselves.

You've got to start thinking, you guys are adults now, you're not little kids, 'I don't like to hear them complaining to me, especially them now, if you're mother's done this (inaudible) I said 'Hey, you're 16 ,17, 18 years old, start taking responsibility for yourself. You can only blame your parents so long…now I'm blaming you because you're not doing anything about it.' You know what I mean? That's a crutch they like to use, but I don't buy it. I don't."
(p. 21)

Mrs. Andrew, the teacher with the most years of teaching experience in the study group, identified how the vocational teachers have asked the difficult questions to assist students who may not have had much confidence.

…a lot of kids that have trouble…they give up. They just say "I can't do this" and they close themselves off. So how do we empower them, to, or to let them know, no matter what, you still need to know this…?" (p. 21)

Mr. Arnold, who was also certified in guidance, expressed how important the interpersonal relationships were between the students and teachers. The issue of teacher quality previously identified by the students was also identified by Mr. Arnold.

…teachers can provide all the materials and (inaudible), but I think that student has to do two things with that teacher to really come through. And one is one is that he has to respect the teacher and the fact that he knows the subject material, and he has good control of the classroom, and he's
out for the best interests. They have to realize that that teacher is there for them…
(p.2 2).

… And that was my second one, was; he has have, he has to trust that teacher. The trust his word, if he's going to say something he's going to do it;…if the kid's in trouble, and maybe wrongfully so, that the teacher will back him up, you know, knows the (inaudible)…So, I think between respect and truth, and I guess

truth and respect kind of go hand in hand in a way, but I think you have to bring it up another notch…(p. 22)

A summary of the common threads for Question 9 follows. The teachers strongly identified the importance of interactions with the students throughout this question. The remaining common threads were identified in Table 3.15

Table 3-15 Summary of Teachers' Responses For Question 9

'Do You Want To Add Anything?	
Teachers Response	# of Teachers Responding
Selection of appropriate students	4 Teachers
Teachers' like vocational education	2 Teachers
Teachers view students holistically	5 Teachers
Students gain with vocational training	5 Teachers
Importance of student-teacher relationship	7 Teachers
Teacher quality	2 Teachers
Vocational education seen as alternative education	4 Teachers

3.1.7.3 Common threads in Teachers' Interviews

Common threads from the Teachers' Interviews included the concepts previously identified from the teachers' responses to the interview questions. The strongest common threads were those that developed when five or more teachers identified similar concepts in their interviews. In Table 3.16 the common threads and the number of teachers who identified the common threads in their responses were categorized.

Table 3-16 Common Threads and # of Teachers Who Identified Each Common Thread

Common Threads and Number Of Teachers Who Identified Each Common Thread	
Common Thread	Number of Teachers
Vocational curricula promoted student engagement	12 Teachers
Engagement was seen as 'getting the students' involved'	9 Teachers
Hands-on learning important to students	9 Teachers
Students were interested in vocational equipment/program	7 Teachers
Importance of student-teacher relationship	7 Teachers
Students viewed vocational school as easier than home school	6 Teachers
Students who chose vocational school appeared more engaged	6 Teachers
Engagement was primarily teacher-initiated	5 Teachers
Students demonstrated a high level of engagement	5 Teachers

Common Threads and Number Of Teachers Who Identified Each Common Thread	
Common Thread	*Number of Teachers*
Practical hands-on learning promoted student engagement	5 Teachers
Individualized instruction with teacher promoted engagement	5 Teachers
Teacher viewed students holistically	5 Teachers

The teachers noted that vocational curricula promoted student engagement and also that hands-on learning was an integral part of the students' active engagement. The teachers indicated that they used teacher initiated engagement more that student initiated engagement. Often, the descriptive words the teachers used included "getting the students involved". The students appeared interested in their vocational programs and were observed to be more engaged by their teachers when the students chose their vocational education versus students who were placed in the vocational programs for other reasons. However, half of the teachers identified that the students envisioned the vocational school as 'easier' than their home school. The identification of the vocational school as 'easier' by the students meant to the teachers that these students were not as interested in the vocational school for vocational reasons. The teachers elaborated about the characteristics of the students who saw the vocational school as 'easier'. The students often had past disciplinary or academic issues which led to their placements in the vocational school by choice or advisement.

The teachers identified individualized instruction as an important strategy to promote student engagement. The same number of teachers saw engagement as primarily teacher-initiated. Correlation between the two concepts may have indicated that the teachers believed they needed to facilitate the students towards individualized instruction first in order to enable the students to discover this type of learning.

The teachers appeared to view their students holistically. They addressed all aspects of the students' lives affecting the students' abilities to learn in their responses pertaining to

teaching in a vocational school. The teachers often identified home backgrounds, behavioral problems with other teachers or peers, and/or academic or learning deficiencies as problems the students had to overcome to learn. The teacher-student relationships were considered very important by the teachers for the students' success in school. Two concepts, the holistic views of the students and the importance of the teacher-student relationships, often appeared together in the teachers' interviews. The identification of the students' problems and the willingness to see the students holistically appeared to be the most common methods the teachers used to assess and communicate with their students.

3.1.7.4 Application of teacher interviews to student engagement

The following analyses was attempted to cross analyze the content of teachers' interviews with the five qualities of student engagement identified in the methodology. The five qualities of student engagement were the framework for the students' interviews questions, especially the first interview in which the questions were developed to promote the students' responses about the five qualities of student engagement. The use of the teachers' responses as quotes was selected over quantitative analysis in the triangulation of the data to allow for alternate impressions of the material to be made by the reader.

The teachers' perceptions of students' background and how their perceptions may have affected the students' education was added to this section of analysis. The teachers often referred to the students' backgrounds and what effects difficult issues in the students' lives had on their progress in vocational education. For each quality of student engagement the teachers' responses were identified and the corresponding question the teachers responded to. An analysis of the data between the teachers' and the students' interviews about the five qualities of engagement was included.

Teacher Interview Question: One of the five concepts of student engagement

1. Attention to Work

*attention to details

(Question #4)   "They do seem to come in with a perception about how the school will be run and so forth."
"…I think they pick off a menu and say, 'that looks like fun, and I think I wanna do that' without fully knowing the technical aspects." (Teacher #1/O, p. 9)

(Question #4)   "I would give homework, you know, to read the book so when you came in the next day then you would understand why we're doing things. I use to get feedback
'Well, we never do any homework'". (Teacher # 12/O, p. 11)

*concentrate easily

(Question # 2)   "Engagement takes me all year, I believe, to actually get them on board and see it for what it is." (Teacher #1. p. 4)

(Question #2)   "I think it varied. Some students seem to; it appears that some students get more involved." "…some are very much involved in their vocation and others are here, that I see, as a means to just get through., get by." (Teacher #9/N, p. 4)

(Question #4)   "So on one side, it's hard for them because they've never learned to do that, they've been spoon-fed all these years until they get to vocational education." (Teacher #4. p. 11)

(Question #4)   "Again, they still say that the academic end is watered down, there's no real challenge there. But they're so engrossed in the shop itself, that, you know, they're pushing themselves here. They're actually going above where I am teaching…it works well for them." (Teacher # 7, p. 11)

(Question #4)   "some of the comments you get from the tenth graders is 'well I have a learning disability or I have dyslexia or whatever', that's fine learn to work around it, you must read this."
(Teacher # 3/N, p. 9)

3.1.7.5 Attention to work: Attention to details and concentrates easily

The teachers' and the students' perceptions of the students' 'attention to work' appeared

to compliment one another. For example, (.69) of the students admitted that their minds wander

easily. And (.44) of the students had trouble concentrating. The teachers expressed similar

perceptions about the students. The students were often observed by the teachers not

concentrating on their assignments and having difficulty staying on task. Nine of the teachers

described student engagement by 'getting the students' involved. And five of the teachers saw

student engagement as 'mostly teacher initiated'. However, six of the teachers believed the

students were more engaged when the students chose the vocational school versus student

placements in the vocational school for other reasons. Five of the vocational teachers believe the

students' 'attention to work' was also affected by their poor academic backgrounds. Four other

teachers believed the students had histories of not working in school. Two other teachers

identified the students' home lives/backgrounds to have a detrimental effect on their

engagement.

The teachers' responses supported the literature regarding student engagement and at-risk

students. Many at-risk students, those with poor academic backgrounds and poor family

backgrounds, were identified as poor learners with minimal levels of student-initiated student

engagement. The students in their interviews substantiated the same premise. Students with the

poorest academic backgrounds and the poorest family backgrounds received the lowest scores

for their responses about student engagement.

2. Initiative-taking behaviors

*finishing project

*seek out help

(Question # 3)   "I think it depends on their maturity level…The ones that I see that are mature
even if they've, they're mature for their age, even if they've been in a
disciplinary problem in another school, they come here and if they're mature
for their age, they usually enjoy this freedom so much that they take
advantage of it and do all they can in their shop.
(Teacher # 2/N, p. 8)

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(Question #6)   "Those students are used to taking care of themselves, so the independent work usually means they are much more in control and more responsible for their learning." (Teacher # 4/N, p. 15)

*describe self as persistent

(Question #2)   "Yes, I believe so. I, for the most part, most of them are. There's a couple that you have to push, they're harder to get motivated and to do their work. But for the most part most of the students want to learn." (Teacher #6/N, p. 4)

(Question #3)   "When they get here this particular type of student has not worked that hard in any particular area." (Teacher #1, p. 6)

Initiative-taking behaviors: 'Finishing project'; 'seeks out help'; and 'describes self as persistent'

The teachers' and the students' perceptions of the students' abilities in these areas were complimentary. The teachers' identified the 'maturity' of the students as a strong factor in the students' abilities to initiate learning. The teachers found that the students who were interested in the vocational program were the most likely to initiate their learning and sustain it. These observations were made about students who may have had disciplinary issues in other schools. The teachers believed the vocational learning environment had an effect on the students' learning and the students' willingness to initiate and sustain their learning. The students' responses to this question appeared to substantiate the teachers' perceptions about the students who entered the school with the best academic backgrounds or vocationally focused reasons to attend the school. For example, the eight students who scored the highest for finishing a project were, for the most part, the students with highest academic records or the highest interests in the vocational program or both. In most cases the students who sought out assistance from their teachers, another method of student initiated engagement also had the highest academic records or the most interest in the vocational program or both.

3. Sense of connectedness with prior experiences

*personal experiences for choosing vocational school

(Question # 2)   "I would say many are…but I do see some of them; there's a number of students who come here basically…not because they're so interested in vocational…learning vocational, as leaving their home school…looking for something else." (Teacher #11/O. p5)

(Question #2)   "…some are very much involved in their vocation and others are here, that I see as a means to just get by." (Teacher #9/N, p. 4)

(Question #3)   "If it's related to something that they're interested in, or they like doing…I think then, if you can relate things…they learn more, they're engaged more." (Teacher #2/N, p.6)

(Question #3)   "Now the type of student that we're getting here at the school…most people think that we are getting cast-offs from the home schools. But I could say that I have a bell curve of intelligence, if you will, here in our room." (Teacher # 8, p. 8)

*see vocational school as more interesting than home school

(Question #2)   "I'd say yes, they appear to be engaged in, from experience in the shop; it's new to them, it's exciting, it's interesting and they want to. They have somewhat chosen this path because they think they want it." (Teacher # 2/N, p. 4)

(Question #2)   "I would say most of them. A few of them came with other reasons, I think. But most of the students I've had seem like they were very interested in this vocation." (Teacher # 5/O, p. 4)

* involvement in planning of the vocational instruction

(Question #2)   "Usually, I think it's almost 25% are and 75% are here because they had to do something and this is what they chose." (Teacher # 3/N, p. 4)

(Question #2)   So I think they try to take advantage of their vocational programs because somewhere in the back of their minds they think, 'Okay, this is the kind of education I can use.'" (Teacher #4/N, p. 4)

(Question #2)   "That the more choice or the more they were involved in choosing that career, or that shop, than the more engaged they're going to be." (Teacher # 8/O, p. 4)

(Question #2)   "I would say a 50%-60% of them are. They come here and actually want to do this." (Teacher # 10/O, p. 5)

(Question #3)   "I just think that if they're just willing to try and give it their best shot that it will be a really good experience for them." (Teacher #6/N, p. 7)

(Question #3)   "…but the ones that are here because they have a strong desire to be in this particular shop are the ones that…get much more involved, much less difficult to deal with." (Teacher #9/N, p. 7)

(Question #3)   "Well, I get a good percentage of students who, that want to be prepared. Then I get a percentage of students that are just placed in our school because they don't have high academics…" "And you see a few of them…that it's a long process." (Teacher #10/O, p. 7)

(Question #4)   "…they're feeling that this is going to be easier here than it was, and that this is where kids 'like them' go because it's going to be easier and not much is expected of them.(Teacher #2/O, p. 9)

(Question #4)   "Usually it's or very often it's 'I hate my home school, I can't stand those people, I don't want to go back there'. So a lot of times it's an escape from the academic program or the home school because of people…usually they've gotten in trouble a lot at the home school, usually they've been   thrown out and this is their option." (Teacher # 4/N, p. 9)

Sense of connectedness with prior experiences: 'Personal experiences for choosing vocational school'; 'Sees vocational school as more interesting than home school'; 'Involvement in planning of the vocational instruction'

The teachers almost unanimously agreed that the students who chose a vocational education were the most engaged. The teachers also observed that if the vocational curriculum was something the students related to it was more interesting to them. The teachers and the students had complimentary expressions about the students' 'sense of connectedness' positively affecting student engagement. For example, the students who had a strong 'sense of connectedness' to their choices of vocational education were the students who appeared to succeed the most in the first year of their vocational program. The students as a group scored the highest for this question in Student Interview 1. The lowest student score was (.66). The students who scored low for 'sense of connectedness' expressed the least focused reasons for attending the school or they expressed ambivalent feelings about the school. Both the teachers and the students agreed that the stronger the personal experiences the students had when they

entered the school, the stronger the 'sense of connectedness' was evident from the teachers' perspectives. The strong 'sense of connectedness' appeared to provide the students with student-initiated, active engagement. This active student engagement was then observed by the teachers.

Most of the students perceived the vocational school as more interesting than their home school. The teachers observed that the students who chose the vocational school were more innately engaged than those who did not. The teachers expressed that the placement of students in a vocational program for other reasons besides vocational or career goals was often counter productive for the students and the class. Eleven of the students in the study group expressed strong health career goals. Ten of the students in the study group identified hands-on learning as the method of learning they liked the most. The teachers' responses complimented this information about the students in their interviews. Twelve teachers believed the vocational curricula promoted hands-on learning. Five of the teachers specifically identified hands-on learning and practical application as very important to student engagement.

The students scored high in the 'involvement in planning' of their education. The students expressed interest in being self-directed and having the opportunity to plan their activities in the day. This was a positive response to student-initiated engagement. However, the teachers, had mixed expressions about the students' 'involvement in planning' their education. Often, the teachers identified that the students were involved in their planning of their vocational activities if the students had chosen the program. The students who the teachers believed did not choose their vocational education appeared to the teachers to be much less inclined to exhibit a strong initiative in their learning.

Another aspect of the students' 'involvement in planning' of their education was with the teachers' responses to what strategies the teachers used to promote learning. Twenty of the

strategies the teachers identified were 'teacher initiated'. Eight of the teachers' strategies were

student initiated. Nine strategies were interactive between the students and teachers. The results

in the quality of 'involvement in planning' were not complimentary but more antagonistic. The

students expressed strong interests in the quality of 'involvement in planning'. However, the

teachers identified teacher initiated teaching strategies as the most used method of instruction. A

question that developed from this tension in the data dealt with the placements of students in

vocational programs. If the teachers did not have as many non-interested, placed students in the

vocational programs, would this affect their teaching strategies? Could the teachers' teaching

strategies then change to allow for more 'involvement in planning' which the students identified

was important to their engagement?

4. Positive interpersonal skills

*description of relationships with teachers/peers

(Question # 2)   "Not from day one. 'Causes I'm not so sure that the students actively choose to come here. I think sometimes they're just more or less disengaged in other programs so they move them toward this program hoping that they'll get engaged in something. But my experience here is that hasn't been happening." (Teacher #12, p. 5)

(Question # 4)   "I imagine at first they feel, I would think sometimes they would feel betrayed, that somebody pushed them off into another place. But then after they get here, of course, I think they fit in very well and probably fit in better than they would at their home schools." (Teacher # 8/O, p. 11)

*perception of teacher relationship to the student

(Question #3)   "So, you're always trying to, I feel, work very hard to get them to buy into the philosophy I believe I have about the world…" (Teacher #1/O, p. 8)

(Question # 4)   They're usually very defiant students, very emotional. It's nothing for them to curse at you… use the big F word. They don't respond to well to authority, they don't respond to structure. They…it seems…they fight you at every turn and then if you get them not to be fighting you then you have the hum…passive-aggressive 'I just won't and you can't make me'". (Teacher # 4/N, p. 9)

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*how teacher/student relationship affects student's work

(Question #2)   "I find a lot of them to be not really sure that the field they're in now is what they really want to do. After working with them for a while, most of them become involved."(Teacher # 7/N, p. 4)

(Question #3)   "Right, and they all learn at their own speed, that's what's nice about it. You're not taking a class at each step, and if one them didn't get it you push him along with the other ones. That's what's the problem is why we have low achievers today. Because they were just herded like cattle and pushed right through. If it takes them two weeks to get this one competency or whatever; that's what it's going to take. There are no short cuts." (Teacher #10/O, p 8)

(Question #3)   "The do all they can in their shop, and then because they're mature for their age, that it just takes off. The ones that aren't mature for their age have a tendency to fracture and get fragmented and get the 'I want it, and I want it to be here, and I want to do it, but I want to do it now, and I want to do it on my schedule'". And I have to… and they still have that thing and that work even with the loose boundaries of the shop, you know. Especially when they only want to focus on one thing, and they can't see the bigger picture. (Teacher # 2/N, p. *)

(Question #3)   "Well, I have some in previous years that it seemed like I fought them tooth and nail. It, they were discipline problems…their attendance, they didn't want to come to school…and when they did come to school they were clowns in the shop….Then usually they end up going back to their home school or quitting." (Teacher # 10/O, p. 8)

(Question #3)   "Their families, their inadequate social skills, and their various work ethics that they've seen displayed throughout their lifetime…all sorts of factors I think influence them greatly, greatly…Oftentimes, the kids who most stable and seem to be right where you need them, pretty much, they have a normal family, typical normal family life…Dad goes to work, Mom goes to work… there's a pretty stable home there. (Teacher #1, p. 8)

Positive interpersonal skills: 'Description of relationships with teachers and peers';

'Perception of teacher relationship to the student'; 'How teacher/student relationship

affects the student's work'

The students' responses to this area appeared to closely follow their past experiences with

their teachers and their peers. For example, the students who scored the lowest in these areas

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indicated they had the highest incidences of disciplinary issues and expressed previous difficulties with their teacher and peer relationships.

The teachers identified that many of the students entered the vocational school with poor interpersonal skills which they attributed to the students' former experiences in school. Often the teachers empathized that the students were push out of their home school or placed in the vocational school. One teacher empathized that the students might have felt "betrayed". The students provided similar results in their answers about their interpersonal relationships. Half of the students expressed previous negative relationships with their teachers. Over a third, (.38) of the students expressed previous negative relationships with their peers. Many of the students who expressed these negative relationships also had the lowest academic grades and the highest absenteeism when the entered the vocational school. However, almost half (.44) of the students expressed positive relationships with their former teachers. These students were often the same ones who chose the vocational school.

The students offered a wider range of responses to the questions about the perception of the teachers' relationship to the students. Five students perceived their teachers as helpful or approachable. The five students identified the 'explanatory style' of teaching the one they liked the most. The 'explanatory style' of the teachers later developed into a common thread when 12 of the students identified this as a positive perception in their teachers throughout the study. Nine of the students expressed that their relationships with their teachers had improved by the third interview. The teachers expressed similar sentiments about the students. Through the school year, many students improved their relationships with their teachers. The teachers' levels of empathy for issues that affected the students' learning were strong threads throughout the teachers' interviews.

Many of the students who had lower grades and histories of high absenteeism from their previous schools expressed that their relationships with their teachers did not affect their work. The students with the higher grades and histories of low absenteeism responded more positively about how the teachers affected their grades. However, two students Betty and Annette had good grades and expressed that their teachers did not affect their work. Both students were observed to be more independent in the work. Annette had attended Cyber School the previous year.

The teachers' perceptions of the students in this area were closely aligned to the students' perceptions. The teachers were willing to identify and work with the low achievers. Mr. George specifically mentioned difficult interactions with the students who had previous attendance and disciplinary problems. The teachers were also unable to reach some of the students and they returned to their home schools for various reasons.

The teachers identified how competency based vocational learning and the "loose boundaries" (Teacher 2N, p. 8) affected the relationships between the students and teachers. For example, the teachers had to work with immature students and reticent students when the students were first exposed to vocational learning. The teachers expressed numerous positive interactions that enable the students to get involved and focused.

5. Self-evaluation skills

*student evaluation for levels of interest and motivation

(Question # 3)   "From the students' perspectives, I think that their background…and their home life makes a big difference in how self-disciplined they are." (Teacher #2/N, p. 6)

(Ques # 3)   "…I'm not sure that it's specific with respect to a vocation. I think it's more specific for their personality and their commitment with respect to a vocation." (Teacher # 9/N, p. 7)

(Question # 8)   "For somebody, though, who likes to sit around and just, you know, doesn't want to do anything, then that's daunting. Because they were content to just sit back in the classroom and fall asleep, and that was easy. But now they're going to be forced to perform. So it could be a little scary for them. Somebody else could again be excited about it because "I don't have to sit and listen.""

*responses to hard/boring assignment

(Question #9)   "But a lot of students (inaudible) a lot of kids that have trouble…they give up. They just say 'I can't do this' and they close themselves off…" (Teacher # 8/O, p. 21)

Self-evaluation skills: 'Student evaluation for level of interest and motivation',

'Responses to hard/boring assignment'

The students' responses to their self evaluations for levels of interest and motivation provided mixed results between this quality of engagement and their responses to hard/boring assignments. Many of the students scored either low or high for both interest and motivation in the vocational program and responses to hard/boring assignments. This was an expected result. In the past, educators placed emphasis on interest and motivation in a subject leading to the students' positive responses to hard/boring assignments. A few of the lower scoring students for interest and motivation scored even lower for their responses to hard/boring assignments. Only one student, Andrea scored higher for hard/boring assignments when it was compared to her responses for levels of interest and motivation. The remainder of the students had a higher score or an equal score for interest and motivation when compared to the students' responses to hard/boring assignments. As noted earlier, nine of the students expressed a clear interest in the vocational school. However, eight of the 16 students had a negative response to hard/boring assignments.

The teachers identified how the students "give up" (Teacher 8/O, p. 21) and they closed themselves off from their surroundings. The teachers noted throughout their interviews that

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students who were interested in the vocational programs were observed to be more motivated and engaged. The teachers also identified that student engagement led to the students improved work on hard and difficult assignments.

The teachers observed that the students' background appeared to affect how self-disciplined the students were in school. The students' self-discipline was tied to the students' levels of motivation and their attention to the vocational tasks. The teachers identified how little work ethic the students appeared to have from their parents or home lives. Observations by the teachers included that some of the students' parents were considered much more of a liability to the students then what 'disadvantaged' home would have contained. These parents were perceived by the teachers as providing minimal or no positive examples to their children. The students are "really in charge of their own lives", while the same students had "more responsibilities at home". (Teacher 4/N, p. 15)

The teachers' perceptions of students' background and how it may have affected the students' education

(Question # 3)   "From the students' perspectives, I think that their background…and their home life makes a big difference in how self-disciplined they are." (Teacher #2/N, p. 6)

(Question #3)   "Well, it's difficult, because these students, at least from my experience have varied home lives, some of which are horrific." "And other students are economically disadvantaged and you know that this is a way out for them." (Teacher #4/N, p. 6)

(Question #3)   "Well, for example, in my class, it would be nice if somebody has a fairly decent math aptitude, you know, before they actually came into my class and have to calculate decimals and fractions and solve right triangles and do some Trig." (Teacher #12/O, p. 7)

(Question #3)   "…from a teacher's standpoint, it takes different tools to get them engaged depending on their background..." "From the students' perspectives, I think that their background …and their home life makes a big difference in how self-disciplined they are and how well they motivate themselves and how

much attention they pay and how much they connect with and engage with in the classroom." (Teacher # 2/N, p. 6)

(Question #3)   "… and so for many of them this becomes the first time that they are seeing the importance of that, or that it does take place…and you'll talk to them and parents change jobs very frequently, they're in low-paying jobs so it doesn't really matter and they don't see much value there. (Teacher #1/O, p. 8)

(Question #3)   "Academically, I don't know if we really do know their true potential, because I think they're so inhibited by their poor social skills, their bad study habits." (Teacher #1/O, p. 8)

(Question #4)   Students that were forced to come here in the sense they're home schools tells them that they either go to Vo-Tech or they're not going to graduate, because they don't have enough credits or they don't, they aren't going to be able finish there…" (Teacher # 8/O, p. 11.)

(Question #6)   "I think vocational education is important because they are some people who can't, don't have a complete rounded wheel they are little lop-sided. I think that you've got to focus on their strengths…""…there's a lot of students who need what the encouragement of being good at one thing will get them. When they walk in here they don't have to worry about, you know their personal problems…" (Teacher # 3/N, p. 13)

(Question # 6)   "Many parents that are on drugs or alcohol, or just physically are tired of fighting with these kids, and so they're really in charge of their own lives. There are many seniors who are emancipated, so to get up and come to school is all on them. So these are very difficult issues, and they also may have a lot more responsibilities at home. They also are economically disadvantaged so if they want any kind of money they need to work, so homework really isn't an option. (Teacher # 4/N, p. 15)

(Question #6)   "So if they take the responsibility seriously, they're not on drugs or too traumatized by their home life, they actually are more engaged because they are responsible and they see how directly it's going to impact them and their future economic life."
(Teacher # 4/N, p. 15)

(Question # 7)   "Again, the lower-scoring students tend to want to see things, feel things…And even the higher students, they still want to feel it." (Teacher # 7/O, p. 16)

(Question # 7)   "We seem to be getting a large percentage of kids that don't respond as well to structure or discipline." (Teacher # 2/N, p. 17)

(Question # 7) "There's some personal things, there's a handful of people I can tell when they walk in the room what their night was like, if they got yelled at, or what their parent's did. I can see it in their faces…" Teacher # 3/N, p. 17)

(Question #7) "The home life is whole other issue. Like when we were growing up our parents instilled in us work habits. Today it's different. So I go and try to take a kid, tenth grade, and I've got to try to teach him just plane work habits that should have been taught from the parents. And today, as a matter of fact, this year I asked my students how many are in a two-family home and only three kids…" (Teacher # 10/O, p. 17)

(Question # 8) "Well, it would probably depend on whether or not the kid has a brother or sister that had been here, in a vocational program, or a friend that had been here. And that's probably why they came in the first place. Or somebody that just coming in unaware…I think that coming from…well it also depends on whether or not they had vocational programs at their home school." (Teacher # 8/O, p. 18)

(Question #9) "Over the last couple years, I'm starting to get more kids from ****…same situation, horrible records there, they just come here with absolutely no self-esteem or feeling successful in any way. And by and large, they kinda do come on board eventually…" (Teacher # 1/O, p. 20)

The teachers expressed overall concern for the students' home lives. The teachers observed that the students often exhibited behaviors which indicated their home lives were particularly stressful. Issues of economic and educational disadvantages for the students were identified as reasons for the students' lack of progress or slow progress in the vocational school by the teachers. The teachers appeared to accept the students' issues and then incorporate the issues into plans of action for the students in the vocational setting.

3.1.8   Common Thread Between The Students' Interviews And The Teachers' Interviews

The common threads developed in the Students' Interviews and the Teachers' Interviews were analyzed together to identify areas of overlap between the two sets of interviews.   The results from this analysis did not provide as much information as expected. However, the areas

where the students and teachers did not have the expected development of common threads was a development in itself.

Absenteeism was expected to be a common thread throughout the students' interviews and instead it diminished. Absenteeism was hardly mentioned by the teachers as an ongoing issue with the students. The teachers did mention absenteeism as an issue for students who entered the school with high absenteeism. These students were also perceived by the teachers as not wishing to attend school anymore or drop out. There was a fairly strong common thread with diminished student absenteeism for students who were succeeding in the vocational school from the teachers and the students' perspectives. Both groups stated that students who were engaged in the new vocational programs were not absent from school as often.

The discipline common thread was even identified between the teachers' and the students' responses. This result may have indicated that the teachers and the students were equally cognizant of what constituted disciplinary issues for the students. It also may have indicated whether the teachers and the students agreed about students' improvement in disciplinary issues because of the students' placements in the vocational school. The unanticipated thread was the decline and then rise of disciplinary issues for the students between the first and third interviews. This may have indicated that students who were engaged in the vocational programs initially had a diminished sense of engagement by the end of the school year. The students who continued to have disciplinary problems did not receive high scores for their responses to the qualities of student engagement in the three student interviews.

The explanatory style of teaching of the vocational teachers was identified by the students as a strong common thread of student engagement in the students' first interview. By the third interview it was not mentioned much by the students. There appeared to be two reasons

for the explanatory style of teaching not mentioned by the students in the later interviews. The first reason was that the explanatory style of teaching was observed by the students to be diminished in the teachers at the vocational school. The second reason was that the students no longer saw the explanatory style of teaching as something different after a year in the vocational school. The teachers did not strongly identify this concept in themselves. However, alternate strategies identified by the teachers, such as individualized instruction, teacher quality, good student-teacher relationships may have been used to provide similar interactions between the students and teachers.

The students' relationships with their teachers were good and improved then leveled off during the school year. The teachers did not identify the students' relationships with them in similar terms. However the teachers observed how the teacher/student relationships affected the students' work. The teachers had positive comments about their roles as teachers and whether the students' engagement was improved with a good relationship between them. The students also identified very strongly with how the relationships between the teachers and the students affected the students' work. The students identified this concept strongly in their first interview and were unanimous about this concept in their last interview.

The students and the teachers identified the students as kinetic learners. The responses for both groups were (1.00) which indicated similar responses to this concept by the participants. The student did not provide information about kinetic learning in their third interview. The question was not presented to them. However, nine students (.82) responded positively to questions about their work-based learning. The students' interest in kinetic learning had improved during the school year. The students and the teachers' similar responses to kinetic learning provided strong validity for the teachers' views of the students' as kinetic learners.

The question about hands-on instruction also validated the previous results about kinetic learning. The two methods of learning were almost synonymous. Kinetic learning was considered any learning that enabled the student to be out of their seats and moving in the classroom. Hands-on instruction was considered to require a higher level of engagement from the students. The students were interested in hands-on learning when they entered the school and their interest continued through the year. The teachers observed the students' high levels of interest and identified conditions in their vocational programs that facilitated hands-on instruction for the students. Both groups identified the high level of engagement required in hands-on learning. Both group identified that the students were willing to participate in this type of learning.

The students and teachers did not agree in their responses about the students' preference for independent learning. The students' responses were strong and remained strong during the school year for this concept. The teachers' responses were not as clarified in comparison. The teachers identified the importance of the students working as independent learners. The competency-based, individualized instruction found in vocational education was developed to enable learning to occur for students independent of one another. The teachers did not often view the students as independent learners, especially when they began the vocational programs. When the students were older, the teachers observed some students become independent learners. The difference in the responses from the teachers and the students for this concept may have skewed because of the definition of 'independent learning' held by the participants. The teachers indicated similar definitions to the one mentioned. The students may have thought of independent learning as more a freedom issue from the constraints of being told what to do by a

teacher. However, as the year progressed and the students' responses to independent learning remained high, their initial responses were considered more validated.

In Table 3.17 showed how the common threads and their repetitions were scored for the students' through their three interviews and the teachers' in their interview.

Table 3-17 Common Threads Between The Interviews

Common Threads Between The Interviews For Students And Teachers				
	Students			Teachers
Common Thread	1st	2nd	3rd	
Absenteeism	5/.31	2/.13	2/.18	
Discipline	5/.31	1/.06	6/.46	4/.33
Explanatory style of teacher	12/.75	9/.60	4/.33	2/.16
Relationships with teachers good	8/.50	10/.66	9/.81	
Teacher/student relationship affects work	6/.38	9/.60	4/1.00*	7/.58
Kinetic learner	11/.69	15/1.00		12/1.00
Prefers hands-on	15/.94	15/1.00	11/1.00	9/.75
Prefers independent learning	12/.75	12/.75	10/.90	5/.41
Employment	8/.50			4/.33

*Number of students who answered the question.

A noticeable contrast in the data for the common threads was between the students' responses to the 'explanatory style' of the teacher as a positive element in their learning and the teachers' much different response to their use of an explanatory style of teaching as an important part of the students' engagement processes. The students expressed strong responses to independent learning the teachers did not respond to the same degree for this part of the students' engagement processes.

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4.0 CHAPTER

4.1 SUMMARY, CONCLUSIONS AND IMPLICATIONS FOR POLICY AND PRACTICE

4.1.1 SUMMARY

This study sought to understand the processes of engagement for students who transferred from their academic schools to a vocational school. What were the students' abilities and capacities for learning? How did the students perceive themselves in their new school? What were the students' career objectives and how were their career objectives supported or diminished by the vocational curriculum and vocational teachers? To understand the students' levels of engagement when they entered the vocational school it was necessary to identify more about the students. This was accomplished by the development of assessment strategies to be used in the study. The assessment strategies included interviews of the students, interviews of the vocational teachers, review of the students' permanent records, and anecdotal notes about the students from observations made of them during the school year. The data obtained from these sources was triangulated. The methodology led to common threads in the data and the emergence of themes about student engagement processes. The common threads and the emergent themes were used to identify the students' engagement processes and address the research questions.

Engagement for the vocational students was considered a vital component for them to develop and maintain realistic career objectives. In the report, "Student Engagement in Learning and School Life: The Executive Summary" (1998) it was previously noted that

> student engagement begins with the student and is manifested through various behaviors. And although some behaviors may typically be associated with engagement, it is misleading to construe the meaning of engagement from any particular behavior or to construe disengagement from the absence of these behaviors. (p.13)

The study also considered how vocational education and the vocational instructors could promote the students in their career choices. The promotion of the students' career choices was found to be dependant on the assessments of their levels of engagement. The circular concept of the study included three concepts. The first concept was the identification of the students' engagement processes by assessments of interviews of teachers and students, students' permanent records, and anecdotal notes. The identification of the students' engagement processes led to the second concept in which the students were further assessed for their development of realistic career choices. The third concept was the promotion of the students' career objectives in vocational education. The methods of replication of the assessment processes in the study were identified to enable other vocational and academic educators to utilize similar methods of assessment so that the students who enter vocational school may be more adequately prepared for their careers and postsecondary education.

4.1.2   Conclusions

4.1.2.1 Statement of the problem

The critical question is what processes of engagement do students have related to their career objectives when they enter vocational programs, considering the unique, individualized and independent learning environment associated with vocational education?

4.1.2.2 Research questions

1. What assessment strategies can be used to determine the vocational students' level of engagement when transferring from academic to vocational programs?

2. How may identifying the incoming vocational students' level of engagement assist them with realistic career objectives?

3. Depending on the students' processes of engagement when entering vocational schools, how may vocational education promote their career objectives and preparations for their careers?

4. What methods of assessment of vocational students' levels of engagement may be replicated in vocational programs to assure that students are adequately prepared for careers and postsecondary continuing education?

What occurred with the students in the study group? The students' engagement processes were observed to differ between them during the school year. Therefore, the students ended the school year not as a group of successful vocational students, but instead there was a wide range of developments for them. The follow synopsis provides the reader with the students' exit anecdotal notes by the Primary Investigator for the student who completed the study.

Betty: Completed 10th grade with a 3.00 QPA. Betty passed the certification exam for Nursing Assistants. She obtained a position in a nursing home (9.00/hr). She represented the school at the Health Occupations Students of America State Leadership conference as a delegate. She planned to become a She plans to attend nursing school.

Jackie: Failed most of her academic courses and her vocational course for the year. She returned as a 10th grader to the vocational school. Her attendance was poor for 10th

grade and continued when she returned. She was considered for placement because of truancy.

Andrea: Completed 11th grade with a 0.75 QPA. Her vocational grade was a C. She was advanced to 12th grade. Andrea had 43 unexcused absences from school. She became pregnant and was expecting in the spring. Andrea was observed to be more focused on her studies in 12th grade and she planned to attend nursing school "some day".

Natalie: Completed 10th grade with a 2.85 QPA. Her vocational grade was a C. She did not attend the hospital work-based learning because of behavioral problems. Natalie entered 11th grade with less frequent behavioral problems. She passed the skills portion of the certification exam for Nursing Assistants. Natalie was observed not able to initiate or complete the vocational classroom assignments independently.

Susan: Completed 11th grade with a 2.44 QPA, which was substantially different from her 10th grade 1.90 QPA. Susan passed the skills portion of the certification exam for Nursing Assistants. She initiated more of her work on her assignments and competed in a local competition for special needs students. She planned on obtaining a position in a nursing home after graduation.

Kathy: Completed 10th grade with a 1.85 QPA. Kathy was observed to be more focused on her assignments. She competed at the Health Occupations Students of America State Leadership conference in pharmacology. She planned to become a pharmacy technician or a pharmacist.

Mathew: Completed 10th grade with a 0.85 QPA. Mathew received excellent evaluations at the work-based learning sites. He passed the certification exam for Nursing Assistants. He prepared to compete for and attended the Health Occupations Students of America State Leadership conference however his competition was not scheduled. Mathew did not return the following school year until the second semester. He obtained a position at a nursing home (7.85/hr). He had no definite plans after he graduated.

Christine: Completed 10th grade with a 3.42 QPA, which was substantially different from her 9th grade 2.16 QPA. She passed the certification exam for Nursing Assistants. Christine received excellent evaluations at her job. She competed at the Health Occupations Students of America State Leadership conference in Extemporaneous Speaking. Christine's demonstrative behaviors were observed to be diminished during the school year. She planned to attend nursing school.

Annette: Completed 10th grade with a 2.42 QPA, which was substantially different from her 9th grade 3.2 QPA in Cyber School. She was observed to have improved her classroom assignments independently. Annette continued to initiate her work her 11th grade. She received excellent evaluations from her teachers for her resume. She planned to attend nursing school.

Casey: Completed 10th grade with a 2.0 QPA. Casey expressed that she did not like work-based learning except for the lab. She was observed more focused on her work in the 11th grade. Casey volunteered to review a forensics program during class time. She continued to be self-directed and thorough in her assignments. She planned to attend college and study forensics.

Katherine: Completed 11th grade with a 3.4 QPA.   She passed the certification exam for Nursing Assistants. Katherine received excellent evaluations at her Co-operative Education job in school. She was expecting her second child. Katherine planned to attend nursing school.

4.1.2.3 Research questions addressed

1.   **What assessment strategies can be used to determine the vocational students' level of engagement when transferring from academic to vocational programs?**

Nine assessment strategies were identified which were used to determine the vocational students levels of engagement when they transferred from their academic schools to the vocational school. The assessment strategies were often interrelated and used similar methods to obtain the data such as the students' or teachers' interviews or the students' permanent records or anecdotal notes from observations of the students.

The first assessment strategy identified from the data was a need for pre-entrance assessments of the prospective vocational students' attendance records. The students' attendance records (excused and unexcused absences) from the preceding school year indicated that some of the students were absent enough days to have their absenteeism jeopardize their engagement. The reasons the students gave for their previous absenteeism, besides illness, were that they were bored with school; or did not like their teachers or peers; or did not have anyone to encourage them to go to school. There was a strong positive correlation in the literature between students' attendance in school and students' positive academic performance. In the research for the study, positive student engagement was determined to include 'active' performance by the students.

Students with high levels of absenteeism may not have performed as well in general in their learning because they missed the activities in the classroom that promoted or sustained their engagement.

The second assessment strategy was the identification of the students' 'sense of connectedness to the vocational program. Student Interview 1 provided questions for the students which were developed from the five qualities of student engagement previously identified in the research. The students' 'Sense of connectedness' was near (.90). This score seemed to indicate that the majority of the students in the Health Assistant program were placed in a vocational program they found a personal connection to. The 'Sense of connectedness' contained three subsections; 'Personnel experiences', 'Sees vocational school as more interesting', and 'Involvement in planning'. The strongest student responses were in the subsection 'Involvement in planning' by the students with their education. Students who entered the vocational schools could be interviewed periodically to ascertain their 'Sense of connectedness', and especially their interests in more proactive involvement in the planning of their learning. Student empowerment was noted in the literature to be a positive means to encourage student engagement. As noted, the vocational students' exhibited positive responses to questions about their 'Sense of connectedness' which included their 'Involvement in planning'. These two concepts may have indicated the incoming vocational students' interests in more direct empowerment in their learning in the vocational schools. Cushman (1994) was noted to encourage student engagement by inviting the students to set up and evaluate their own goals. The students' set up and evaluation of their own goals led to the engagement itself. "[H]aving decided where they're headed, students can participate in shaping the route they will take to get there" (p. 1). In the

School Reform WebCenter (2004) it was also identified that students can find relevancy in their learning through application of their own experiences.

Another concept which affected the positive scores for the students' responses in the 'Sense of connectedness' quality of engagement was the comparison of it with the teaching methods used in vocational schools. Competency-based education and individualized instruction were also identified in the literature as vital teaching methods used in vocational education. Both methods of instruction were noted to rely heavily on the students' active involvement to plan their education. These methods of instruction were also validated by the teachers in the study group. The teachers stated they used competency-based instruction with their students and the use of student-determined plans for completion of their work to some degree. The teachers also mentioned they used individualized instruction in their teaching strategies. Therefore, the 'Sense of connectedness' the students had when they entered the vocational school was probably reinforced with competency-based instruction and individualized instruction used by the vocational teachers.

Many of the students were able to identify their learning styles. The students responded to nonspecific questions about how they liked to learn with specific answers they gave about how they envisioned themselves as learners. Many of the students identified themselves as kinetic learners who enjoyed hands-on activities. Many of the students appeared to make an attempt to connect specific careers to their strongest learning styles when they chose to attend the vocational school. It was also identified in the study that other students, who entered the vocational school for reasons other than strong career objectives, did not express themselves clearly about their career choices or their learning styles. In the research, the identification of the students' learning styles by the students was used to promote their engagement. The students in

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the study who appeared to express higher levels of engagement were able to more clearly identify their learning styles.

The third assessment strategy was the development of the students' self evaluation skills from Student Interview 1. The 'Self-evaluation skills' contained the subsection 'Response to hard/boring assignment' in which over half of the students responded poorly to hard or boring assignments. Cushman (1994) found that students were encouraged in their learning when they were invited to set up and evaluate their goals. This process let to the students' engagement. "[H]aving decided where they're headed students can participate in shaping the route they'll take to get there." (p.1)Students could be assessed before they begin difficult vocational programs to ascertain their levels of frustration with new or difficult material. The students' inability to respond positively to difficult assignments was observed by the teacher in the study and the research to hinder the students' progress in school. This result was also observed in the study group students. Competency-based education and individualized instruction, which were identified as facilitating student engagement and commonly used in vocational education, were observed to be more difficult for the students who stated they responded poorly to difficult assignments.

The fourth assessment strategy identified pertained to the students' attention to their work. In Student Interview 1 in the quality of engagement 'Attention to work' which contained the subsection 'Attention to details' the students' responses were scored high.

However, the other subsection for 'Attention to work' was 'Concentrates easily'. The students' responses were scored low for 'Concentrates easily'. The contradictory data indicated that students who entered vocational schools may have had high interests in the vocational programs with poor levels of concentration. The confliction of the two engagement qualities,

positive 'Attention to details' with diminished 'Concentrates easily' could be misleading to educators about the students' engagement processes for them to manage the rigorous vocational material. Assessment of incoming students about their attention to details in learning and their ability to concentrate appeared to provide educators with more realistic views of the students' learning potentials as well as their levels of engagement when they entered the vocational school. In the teachers' interviews the teachers often identified the students' lack of ability to concentrate. The teachers also commented on the students' high levels of interest in the vocational programs along with the students' lack of academic preparations and academic disadvantage.

The sixth assessment strategy was the assessment of the students for academic disadvantage. Academic disadvantage was often observed by the teachers when they described incoming vocational students. Assessment of the students for academic disadvantage in the study assisted in the determination of the students' levels of engagement when the students transferred from academic to vocational schools. The students, who entered the vocational school academically well behind their peers, were observed by the Principal Investigator and the teachers in the study to have had additional stress placed on them even as they faced new challenges involved in their transitions to a new school. Early assessment of the students' permanent records enabled the Primary Investigator to determine which students were most at-risk not to succeed in the vocational school regardless of any previous classifications of the students. In the research it was noted that students who were academically disadvantaged often had difficulty with engagement. For example, at-risk students were noted in the research to view their academic schools differently than other students. The at-risk students identified emotions associated with school that were as important as their academic disadvantages to their success.

Wehlage, et al. (1989) identified how students at-risk had 'some degree' of engagement but their disengagement was observed because of their academic and/or behavioral issues (p. 177).

The seventh assessment strategy was the of the students' interests in the vocational program and their aptitude for hands-on and kinetic learning. Noted earlier, the most positive scores for the students' responses in Student Interview 1 were their 'Sense of connectedness' to the school and their willingness to seek out hands-on and kinetic learning. These two factors in the students appeared to offset some of the academic disadvantages the students may have entered the school with. Positive assessments for the students of strong interests in the vocational program with the students' combined interest in hands-on and kinetic learning provided educators with a window into student-initiated engagement in the incoming students. In the research about student engagement, it was identified that educators should acknowledge positive factors in the students to balance their academic and socio-emotional deficits to promote engagement. Rockwell (2002) identified that students often did not "experience a sense of belonging, achievement, or power through school-related activities" (p. 16).

More specific identification of the students' career objectives was the eight assessment strategy identified as important to the students' levels of engagement when they transfer to a vocational program. The vocational school in the study provided the students with a 'career objective' paper on which the students place their first, second, or third career choices. The students were then placed in their first place vocational program if it was available. Otherwise, the students were offered their second or third place choices if they still wished to attend the vocational school. Additional career counseling was not offered to the students during their first year in the vocational school. Because of the research study, the new Health Assistant students were interviewed within the first two to three months of school. During the interviews, the

students provided detailed information about their career and vocational program selections. By the end of the second nine weeks grading period most of the students were observed to be able to ascertain whether they believed the vocational program they were in met their career objectives. At the second nine weeks grading period, two students in the study group did not wish to work primarily in health care. One student planned to be a dancer and another student remained ambivalent about a career choice. An appropriate learning environment for each student was identified in the research to be a strong prerequisite to student engagement.

The assessment of the socioeconomic backgrounds of the students in the study group was the ninth assessment strategy. Assessment of the students' socioeconomic backgrounds provided the Primary Investigator with information about the students' lives which may have affected the students' decisions to attend the vocational school and their subsequent engagement. The assessments of the students' socioeconomic backgrounds was based on the students' permanent records, free/reduced lunch eligibility, observations of their homes, and information gleaned from the students during the school year. This information provided a view of the peripheral issues about the students' lives. Assessments of the students' socioeconomic backgrounds provided information about the students' levels of engagement when they transferred to the vocational school. For example, for some students, their levels of engagement were compromised by their socioeconomic backgrounds. The students' identified issues such as uniforms, inability to conform to their peer groups expectations because their economic backgrounds, poor interpersonal relationships with teachers and/or students, or other behavioral problems as their primary reasons for leaving their academic schools and entering the vocational school. Some students seemed confused over their reasons why the chose to enter the vocational school. During the study it was noted that when the students chose the vocational school

because of issues in their socioeconomic backgrounds their levels of engagement were affected sometimes affected either positively or negatively.

Further data analyses led to additional observations about how the socioeconomic issues the students faced may have impacted their learning. An example of a socioeconomic reason to change schools previously mentioned was peer pressure for the students to conform to certain dress codes in their academic schools. Although the students expressed interests in vocational education, some of the students expressed deeper struggles for them to fit in with their peers in their previous schools. They identified other students who dressed better and had more money than they had. The students mentioned how they often felt excluded from their former peer groups. The assessments of the students' family backgrounds; their eligibility for free/reduced lunches; and the observations of their homes indicated that most of the students had most likely struggled economically before they chose to enter the vocational school. Most of the students identified the vocational school as a means for the students to gain employment. Many of the students also expressed their wish to attend a postsecondary school. However, none of the students expressed a well-conceived plan for how they would attend a postsecondary school or pay for it. None of the students mentioned they had any financial or emotional support from their parents or guardians towards their goals. Responses similar to the students were noted in the research about economically disadvantaged students who wanted to attend college. For many at-risk students in the research, college appeared to them to be unattainable because of their socioeconomic backgrounds.

2.   How may identifying the incoming vocational students' level of engagement assist them with realistic career objectives?

McMahan and Portelli (2004) and Fletcher (2003) identified that students, especially those at risk, required proper career guidance, identification of each student's needs, with better assessment techniques, and adequate educational support for their vocational placements to assure success. The levels of student-initiated active engagement in the students when they first entered the vocational schools were observed to be a pivotal part of the students' choices of realistic career objectives. For example, students whose responses led to scores that reflected higher levels of student-initiated, active engagement, in the interviews were found to also be more focused on their career objectives and more realistic about their academic progress. The students whose responses were scored more positively appeared to use their vocational education experiences to begin to meet their long-term career goals of postsecondary education and future employment. The students whose responses were not scored as positively in the interviews were often observed to have continued their academic or interpersonal problems in the new school environment during the school year. The students' academic or interpersonal problems ranged from minor to major issues for them. For example, Jackie, whose responses were scored low throughout the school year in the area of student-initiated, active engagement, entered the program academically disadvantaged. She identified numerous socio-emotional issues with her former teachers and peers. Her career objective was initially to become a Cosmetologist. When she was offered a placement in Cosmetology after she began the year in the Health Assistant program she decided not to change. Although Jackie did not attend school regularly during the school year her responses in the interviews were scored more positively between the first interview (.38) and the last interview (.66) for her level of engagement. However, Jackie's level

of student initiated engagement based on the methodology in the study was far below the levels of engagement scored for the other students in the group.

A review of Jackie's permanent record and an interview with the student led to the determination that Jackie needed remediation in math, reading and science when she entered the vocational school. Noted earlier, Jackie's QPA from ninth grade was very low (1.57) She had not received credit for her science course. In the research it was noted that students who were academically disadvantaged were more likely to be disengaged in their learning. Most of the students in the study group with QPAs below 2.00 were not assessed when they entered the school or periodically other than by their permanent records from their academic schools or their periodic grade reports in the vocational school. The exceptions were the students who were classified as learning disabled with IEPs (Individual Education Plan) which mandated periodic thorough student assessments. The students in the study group with QPAs below 2.00 received no additional counseling during the year of the study pertinent to how their grades would affect their stated career objectives. Some of the lower functioning students in the study group expressed interests in becoming doctors or dentists. An early assessment of the students' academic progress may have led to more realistic career selections for the students. More realistic career choices by the students in their first year at the vocational school may have promoted their engagement processes.

Students in the study who were identified as not as engaged were also identified to have expressed less focused career objectives or career objectives that were more unrealistic for them. Students who expressed numerous behavioral issues in their pasts had more difficulty articulating realistic career objectives or any career objectives compared with the students who indicated less interpersonal problems in their pasts. However, the students in the study, who

entered the vocational school with histories of poor interpersonal relationships, expressed and were observed to find the vocational school environment more receptive to their needs. These students stated the vocational school was more comfortable for them because of their improved relationships with their teachers and peers.

Engagement was defined in the research as many faceted, not strictly based on academic factors for the students. Student engagement was noted to be stronger in students who did not have as much at-risk behavioral problems such as difficulty with their peer relationships. Assessments of the students' peer relationships by educators and self-reflections by the students were observed to have positive effects on their career objectives. These assessments of the students' peer relationships and self-reflections by the students the students with opportunities to explore their roles in relationship to others around them. This aspect of interpersonal communication was identified in the research of at-risk students as an important for them to improve to promote their engagement. It was also noted in the research that negative interpersonal relationships often led to decrease student engagement. Student-initiated, active engagement was found easier for students who developed good interpersonal relationships and did not have many negative interpersonal relationships with their peers and feelings of alienation. Noted earlier, the students in the study group often provided examples of negative interpersonal relationships with their peers as primary reasons for them to attend the vocational school. In the research students who had positive interpersonal relationships with their teachers were found to have their engagement promoted. A similar observation was made about the students in the study group and documented in the anecdotal notes.

Realistic career objectives, career objectives that mirrored the students' academic abilities, were observed to develop more strongly in the students who found their interpersonal

relationships with their teachers and peers improved after they entered the vocational school. The students in the study group were observed to be more receptive to career counseling when the student-teacher relationships were positive and when the students were not involved in altercations with their peers. Many of the students also stated that their career objectives were stronger after they had attended the vocational school for a year. The previous observations by the students were reinforced in the data analysis by the students' qualities of engagement which either improved or remained strong between the three student interviews and observations of the students in the vocational classroom.

The students' responses in the 'Sense of connectedness' quality of engagement were scored high, which was noted earlier. The assessment of this engagement quality for incoming students provided information about the reasons the students selected the Health Assistant program. Identification of the students' reasons for selection of the Health Assistant program appeared to enable the students to understand more clearly their decisions in their selections of their vocations. For example, the reasons the students gave for their choice of the vocational school often became one of the reasons the students expressed throughout the year for their academic improvements. Most of the students stated during the school year that the interviews provided them with more understanding about why they chose the vocational school. Many of the students' responses in their interviews conveyed improved or improving levels of engagement and career focus.

In order for vocational teachers to assist students with realistic career objectives, the teachers indicated they needed more information about the students when the students first enter the vocational school. Students' backgrounds and home lives were noted in the research to have bearing on the students' attendance in school and the students' work ethics. In the research it was

identified that clearer understandings of the students' backgrounds and home lives could assist educators to plan teaching strategies to promote the students' engagement. Vocational teachers in the study stated they planned their teaching strategies based on their assessments of the students' abilities to handle independent assignments and competency-based instruction. The teachers also identified that the abilities of the students to manage independent learning were associated with the students' work ethics. Adolescents tend to develop their basic work ethics from modeling their parents' behaviors. The teachers stated that they believed that many of their students did not have parents who modeled strong work ethics.

A link between strong work ethics and career objectives was noted in the students who responded well to difficult academic assignments and work-based learning assignments. The vocational teachers appeared to guide the students toward career objectives which were considered by the teachers to be realistic. The teachers guided the students with small conversations with the students and assessments of the students' abilities. The teachers also identified their efforts to develop stronger interpersonal relationships with students who did not have prior good teacher-student relationships**.**

The students who received learning support in the study appeared to benefit from their placements in the vocational school. Their levels of engagement were identified early in the school year because of their participation in student interviews. More inclusive documentation was available about these students from their IEPs. Realistic career objectives for the students who received learning support were also based on their academic and socio-emotional progress. The benefits for these students from their selection of the vocational school appeared to be more socio-emotional than academic. The three students who received learning support, Natalie, Susan, and Laura, stated that they received more academic assistance from teachers in the

vocational school and the students were also able to remain in their regular education classrooms and the vocational classroom for more hours. The three students' responses were scored low for the interview questions about interpersonal relationships with teachers and students. Natalie had a history of altercations with previous teachers. Susan and Laura, both classified as EMR, were observed to have difficulties with interpersonal relationships with their peers. Neither Susan nor Laura displayed many age-level interactive abilities or age-appropriate social skills. Susan and Laura progressed through the school year and were observed to have some improvements in their interpersonal relationships. Examples of the improvements were the Susan's and Laura's expressed and observed abilities to maintain positive relationships with their peers, and better relationships with their teachers. However, Natalie's interpersonal difficulties with her peers led to fights with them. She displayed improvement in this area of her interpersonal skills development, but it was not as dramatic.

It was identified in the research that special education students in vocational programs were at-risk because of their low academics abilities. The special education students in the study appeared to benefit from early assessments of their academic needs by all of the teachers in the vocational school. The students who receive special education often bridged their academic assignments and their vocational assignments between teachers. However, there was no formal bridge of the curricula between the academic and vocational programs in the school. The approach was 'hit or miss' in the attempts by the special education, academic, and vocational teachers to merge the students' academic and vocational needs and assist the students. The three students who received learning support saw their academic grades fall during their first year in the vocational school and their vocational grades were average. The students' expressions of student-initiated, active engagement were score low. Their stated career objectives were not

realistic in comparison to their academic abilities. The students may have benefited from realistic career objectives developed prior to their decisions to attend the vocational school and based on their academic and socio-emotional abilities.

3. **Depending on the students' processes of engagement when entering vocational schools, how may vocational education promote their career objectives and preparations for their careers?**

Vocational education could promote the students' processes of engagement by providing the students with critical practical experiences which matched the students' career objectives. In the study of Student Engagement (1998) one of the four critical considerations for student engagement was 'curriculum as experience' (p. 42). The students were engaged because the activities interested them. Sanders (2000) indicated that work-based learning was a positive method of instruction for at-risk students (pp.12-14). Rockwell (2001) identified that school related activities for at-risk students should have provided practical applications (p. 16).

The students in the study group provided information about their levels of engagement when they entered and as they progressed through the first year of the vocational school.

Their processes of engagement were identified from their responses in the three interviews they completed with the Primary Investigator. As a group the students' levels of student-initiated, or active engagement, as measured in by the identified methodology, improved during the school year. The students' engagement as a group was strongest in the middle of the year and tapered off only slightly at the end of the year. The students expressed in their responses that their 'Sense of connectedness' to the vocational school was their strongest quality of engagement. Their responses were found to be equally strong for their 'Favorite thing about the program/school' in the middle interview. The students' 'Response to clinical' (work-based learning) contained their strongest quality of engagement at the end of the school year.

It was noted that many of the students in the study group stated preconceived ideas about the vocational school. Some of their comments were derogatory about the vocational school, yet they were still inclined to change their schools. This situation may have occurred because the many of the students identified strong career objectives in the beginning of the school year. It appeared that some of the students chose to attend the vocational school to meet their career objectives. They may have viewed their career objectives as more important to them than the reputation the vocational school may have had with their peers or themselves.

The research also indicated that students who were focused in a subject were more likely to be engage in the learning. It would follow that identification of students' 'sense of connection' was an important part of promoting their career objectives. The strongest of the 'subcategories' identified in Student Interview 1 provided additional information about the students' engagement levels when they first entered the vocational school. For example, in general, the students expressed that their minds wandered (.69); they had difficulty concentrating (.50); liked working at their own pace (.50); had a negative responses to a hard/boring subjects; did not persist with difficult assignments (.50); requested teacher's assistance (.56); identified themselves as kinetic learners (.69); preferred hands-on activities (.94); and chose the vocational school to help them obtain a job (.50). The 'subcategories' appeared to indicate that many of the students, no less than half, were interested in work or employment, but had trouble concentrating and learning. The students stated they enjoyed working with activities that required hands-on skills and activities that did not require the students to sit in their chairs all day. Vocational education would be a method to enhance students' processes of engagement through the focus on the students' career objectives. In order for the students to have vocational education promote their career objectives and preparations for their careers he students appeared to require some basic

engagement processes present and minimal career focuses. The students who did not exhibit these qualities appeared not to benefit from their placement in the vocational school.

In the students' interview 'common threads' of data were identified which also reflected the students' process of engagement and were either facilitators or impediments also called 'liabilities' for the students' vocational education promoting their career objectives. The 'common threads' which occurred most often in the three student interviews were identified and compared. The 'common threads' considered facilitators in vocational education included the students' attendance; relationships with teachers; interests in hands-on learning; independent learning; and work-based learning. The students decreased activities which may have impeded their engagement in the past, or would have impeded their progress in the vocational school. Negative activities included their absenteeism from school and their poor interpersonal relationships with their teachers and peers. The validity of the data developed as 'common threads' was established by the comparison and triangulation of the students' stories about themselves with their permanent records and anecdotal notes from observations. Validity in the data analysis was considered enhanced when it was noted that most of the common threads in the students' responses which facilitated their engagement occurred as frequently more frequently between their first and the last interviews. However, common threads which decreased in there frequency in the students' responses were also observed to be those common threads which were more detrimental to the students' engagement. An example of a detrimental common thread was student absenteeism. The stationary or improved frequency of the more positive common threads and the decrease in frequency of the negative common threads over the year of the study indicated the students may have felt their career objectives were promoted in the vocational school.

The common threads in the three student interviews and the number of students who expressed each common thread was provided in Table 4.1.

Table 4-1The Common Threads In The Three Student Interviews

Common Threads in Student Interviews			
Common Threads	**Student Interview 1**	**Student Interview 2**	**Student Interview 3**
Absenteeism High	.31	.68	.63
Explanatory Style of Teacher	.75	.60	No Question
Relationships With Teachers/Good	.50	.66	.81
Relationships With Students/Good	.44	.86	.81
Hands-on Learning	.94	1.00	1.00
Independent Learning	.75	1.00	.90
Work Based Learning		1.00	.91
Strong Career Goals	.63	.80	No Question

When the common threads and the other student data were triangulated it appeared to indicate that the students in the study group entered vocational school with some at-risk qualities and also some qualities of engagement. The identification of both of these factors in the students when they first entered the vocational schools provided the students and the Primary Investigator with a clearer understanding of the students' engagement processes. Clearer understanding of the students' engagement processes led to better promotion of their career objectives in the Health Assistant program throughout the school year and in the assessments of the students' 'liabilities' to their learning. Two major 'liabilities' to some of the students' learning were absenteeism and poor interpersonal relationships with their teachers and peers. Students' absenteeism and poor interpersonal relationships with teachers and peers were also identified in the research to have detrimental effects on student engagement.

The interviews appeared to provide the students with the opportunity to reflect on their career goals and high school preparations necessary to attain them. The students often stated in their interviews they had not considered a question so clearly until it was asked of them. Also,

because of the students' interviews, the Primary Investigator noted the students were more open during the school year in general conversations that occurred periodically between a teacher and the students.

Other student engagement processes when the students entered the school appeared to be facilitated by factors of vocational education. These other factors of vocational education also promoted the students' career objectives for the students. One factor, according to the students, was centered on the vocational teachers and their style of teaching. Vocational education teachers also expressed information about the importance of their student-teacher relationships. In the study Student Engagement (1998) the role of the teacher was a very significant factor in student engagement "Students found human and relational qualities of teachers more significant to their engagement than questions of technique or method" (p. 7). McMahon and Portelli (2004) supported a concept of engagement that was between students and teachers. Other research identified teaching strategies that positively affected student engagement. Hall and Smith (1999) used the connotation of the 'explanatory style' of teaching.

The explanatory style of teaching was identified in the study as a positive factor in student engagement from the teachers' perspectives. The explanatory style of teaching as positive factor in student engagement was validated from the students' perspectives. The students frequently mentioned how important it was for their teachers to simply "explain" the material or lessons. The students provided numerous examples of their academic and vocational teachers who did not explain their lessons and how much this seemed to impede their learning. The students added that teachers who explained the lessons were more interesting to them and they paid closer attention in class. The students stated they felt more interested in completing the assignments of teachers who explained the material. The word or concept of teachers who

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'explained' the information to the students was common in most of the student interviews. Examples of explanatory teaching which were teacher initiated included 'show them', 'take information down to their level', and 'let them see'. Examples of explanatory teaching which were interactive between the teachers and the students included 'relate to something' and 'we discuss'. The student engagement from explanatory teaching was most likely teacher initiated engagement or interactive engagement. However, the explanatory style of teaching often led to the students' increased interests in the lessons which would then promote the students to develop more student initiated engagement.

The vocational teachers identified that many of their students were academically disadvantaged. The vocational teachers expressed they were cognizant of how the students responded to the teaching strategies they implemented in their classrooms to encourage student engagement. Many of the teaching strategies used productively by the vocational teachers were also identified as positive teaching strategies by the students.

4.   **What methods of assessment of vocational students' levels of engagement may be replicated in vocational programs to assure that students are adequately prepared for careers and postsecondary continuing education?**

The students' interviews provided different types of information about the students through a full school year. However, the student interviews appeared to provide the most information about the students as an assessment tool. The assessments of the students were observed to be very important when they made their initial transitions from their academic schools to the vocational school. The interviews also provided a method for the Primary Investigator to assess and develop, with the students, strategies to promote their learning in the vocational program. The students' engagement processes were found to be diverse in the study group of 17 students.

There was no conformity in the data analysis of the student interviews alone. The conformity that emerged was produced from the triangulation of the student and teacher interview data with the students' permanent records and anecdotal observations of the students by the Primary Investigator. The information gleaned from the students in the interview processes was not readily accessible from the students' permanent records or the pre-entrance forms the students and parents completed. For example, the permanent records contained the students' statistical background information; grade point averages and credited courses taken, but no information about the students' socio-emotional or economic backgrounds. The pre-entrance forms, which were part of the students' permanent records, contained information about their parents, their employment, some details about the home environments, and the students' career objectives. When the information obtained in the interviews was triangulated with the students' permanent records, pre-entrance forms, and anecdotal notes well-rounded views of the students' capabilities and deficits were identified.

The interpersonal dimensions of the interview processes were observed by the Primary Investigator, who was their vocational instructor, to have had a genuine emotional impact on the student-teacher relationships during the study. The students in the study appeared interested during their interviews to explain their positions and problems with regard to their backgrounds and their education. Emotional and educational bonds appeared to develop earlier between the study group students and their teacher during the year of the study. The regular and highly interpersonal interviews with the students about themselves, their education, and other pertinent socio-emotional issues also provided the students with an open forum to communicate. As noted earlier, the students were easier to approach in the classroom after their first interview. The students often provided detailed information about themselves that was not available through

traditional methods of obtaining information about the students such as permanent records or statistical reports.

The other methods of assessment that could be replicated from the study are the following:

1. Development of assessments of the students' attendance patterns. The absenteeism assessments could occur prior to the students' admission to the school and during the school year. Students with a history of absenteeism had responses in the interviews which were scored lower in their qualities of engagement than responses from students who were present most of the time. Absent students often had other at-risk factors which were identified early in the school year. Additional components to the student absenteeism assessments, which were not part of the study, would include student interviews early in the school year, meetings with parents/guardians, and the development of an informal contract between the students/parents and guardians, and the school.

2. Identification of the students 'Sense of connectedness' to the vocational school/program. The strongest quality of engagement from the three student interviews was the 'Sense of connectedness' the students expressed in their first interview. Engagement was noted to be strengthened in students who had a 'meaningful student involvement' and when the students saw the purpose for their learning.

3. Identification of the students' learning styles as part of their interviews. The teachers and students both identified that knowledge of the students' learning styles was a positive factor for the students' engagement processes. The identification of the students' learning styles by the students' supported the students' self-reflection about themselves. The students may not have known how to articulate or may have not had to validate how they learn best before the first

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student interview. For example, the students who identified themselves as liking to work with their hands were also identified as kinetic learners who liked to be out of their seats in the classroom. In the former schools for many of the students' their desires to be out of their seats was probably not acknowledged often by their academic teachers. The identification and validation of the students' learning styles by their vocational teachers provided the students with an opportunity to in turn self-reflect and begin to validate even more for them how they learned.

4.   Assistance for the students with their self-evaluation skills. Within self-evaluation skills the students considered their interests and motivations in learning and their 'Response to hard/boring assignments. Many students were unable to maintain the same level of responses between their interests in learning and their responses to hard/boring assignments. The students often dismissed or stated that they did not try to complete boring assignments and also hard assignments. There was an observable pattern during the school year for many of the students pertaining to hard assignments; they simply quit working on them. The students also identified their patterns of disengagement in their lessons. The identification and self-evaluation by the students about their responses to hard or boring assignments often led to discussions about other methods the students could employ to deal with difficult or boring assignments. In the study of Student Engagement (1998) one of the four critical aspects of student engagement was 'curriculum as critical practice'. This was a higher more integrated student engagement. "Knowledge was not fixed but provisional and debatable" (p. 7). The learning environment of 'curriculum as practice' was noted to have room for the inclusion of the students' voices (p. 7).

5.   Assistance for the students to help them understand the relationships of the subsections of the quality of engagement 'Attention to work'. The subsections included 'Attention to details' with 'Concentrates easily'. The students' scores in these subsections of the quality of

engagement 'Attention to work' were 'red flags' which reflected the students' abilities to manage and assimilate new information from an internal perspective or student-initiated, active engagement. The students often described how they wanted to learn but they had difficulty with concentration. The students also identified they had difficulty with attention to details in their school work. However, some the students expressed a strong desire to 'work' on their assignments at the same time, especially in the new vocational school. In the beginning of the school year, many of the students did not express nor did they exhibit strong qualities of engagement in concentration and attention to the details for their work. This appeared after the students had some contact with the vocational curriculum.

6.   Some of the students entered the vocational school's Health Assistant program with many academic disadvantages. Academic disadvantage in students could be assessed prior to the students' entrance into the vocational schools. Remediation of math, science, and reading skills was observed to be essential for the students if they were expected to progress through the vocational content in which these academic skills were necessary. However, only the students who received learning support had remediation of these academic skills the first year in the vocational school. Noted earlier the students' QPAs ranged from 3.57 to 0.00. The vocational teachers expressed concerns about how many of their students were academically disadvantaged. The vocational teachers identified how they spent large portions of instructional time completing remediation skills with the students instead of moving forward through the vocational curriculum.

A surprising result of the study was that many of the students did not improve their academic grades in their first year at the vocational school. The students who received learning support did not improve their grades although their learning accommodations were addressed.

As noted earlier, many students had preconceived views about the vocational school. These views included that the vocational school was easier and that they did not have to work as hard to pass their courses. Some of the students expressed surprise in the interviews about the 'book work' in the vocational program and their difficult academic classes. The vocational teachers agreed that the students were often surprised about the rigorous technical content in the vocational programs. The teachers indicated that some of their students may have entered the school just to "play" rather that dropout of school. There appeared to be some truth to the 'dumbing down' of curriculum in the vocational school. For example, the students who entered the vocational school with QPAs around 3.0 often stated they found the vocational school's academic classes easier than in their previous schools.

7.   There was strong evidence which supported a link between the students' interpersonal relationships and their abilities to relate well in the open learning environment associated with vocational education. The assessment of students' personal histories and interviews of students when they enter vocational schools may provide educators with a window of opportunity to promote change for students who developed negative interpersonal relations with other students or their teachers. There was evidence in the research dealing with adolescent behaviors and student engagement which called for educators to consider the socio-emotional needs of students as a primary aspect of their learning. The research also contained recommendations for educators to address the students' interpersonal skills along with their academic needs.

The students in the study validated this concept in their responses about their interpersonal relationships and how these relationships affected their engagement. The students who had histories of poor relationships with their peers were observed to have a more difficult time when they tried to remain within social boundaries and avoid confrontations with their peers

in the open environment of the vocational classroom. However, the same students were sometimes observed able to redefine and sustain their personal boundaries because in same open environment of the vocational classroom there were numerous opportunities for them to relearn interactive behaviors and succeed. The students who had previous poor relationships with their teachers also had to redefine and sustain their personal boundaries more often with their teachers in the vocational school. The students stated they were more successful with their teacher relationships in the vocational school. The students also acknowledged they believed they were more successful because they had more opportunities to address their teachers in the vocational school and develop acceptable methods to relate to them.

The teachers indicated in their interviews they had high degrees of empathy for the students because of their trouble backgrounds. And although the teachers sought to modify poor student behaviors they stated they were willing to work with the troubled students if it promoted changes in the students' behaviors. The students in the study group were observed to have improved interpersonal relationships with their peers and teachers for those students who completed the study. The improvements for some of the students were noticeable in observations of them during the school year. For other students the improvements were less dramatic. These students gradually diminished many of the impediments observed in their previous interpersonal relationships with their peers and teachers and the accompanying maladaptive classroom behaviors.

8.   The development of an 'at-risk' secondary student assessment program for educators to assist them with the identification of the incoming students who may exhibit at-risk qualities. The identification of new vocational students' at-risk liabilities could assist educators to intervene earlier, more directly, and more efficiently with students who have problems associated

with the qualities of engagement identified in the research. The vocational teachers commented in their interviews on the importance of the identification of students' at-risk. The teachers stated they often had to guess about what the new students needed academically for them to participate in the vocational programs successfully. The teachers explained that they often did not have any, let alone sufficient, information to appropriately deal with their students academic or socio-emotional issues. The teachers described methods of classroom interventions they used with students who were considered at-risk by them. Often the classroom interventions they used sometimes required the teachers to delay lessons for the remainder of the class.

4.1.3   Implications for Policy and Practice

America has continued to import highly skilled labor in the past decade. Our high school graduates often are not trained and educated to meet the current demands from business and industry. Two reasons the high school students are not prepared for employment in high school are grounded in current educational policy. First, most high schools continue to track students into either the academic or vocational tracks. The students in the academic track are expected to enter postsecondary schools. The vocational students are trained to enter the trades. As noted in the research, high school students leave their academic schools and enter the vocational schools for various other reasons. The second reason is the noticeable increased placements of at-risk and other special populations' students in vocational programs during the past two decades. Vocational education has come under more scrutiny recently as the administration plans to decrease its funding.

The role of vocational education had been to provide vocational and technical instruction for the students with the use of competency-based education, individualized instruction and

independent learning. The last two decades brought a decline in the enrollments of general education students in the vocational schools with a simultaneous increase in enrollments of the special populations' students in vocational schools. The literature supported how educators and policymakers redirected the mission of vocational schools from that of vocational and technical education to the role of alternative placement facilities for adolescents who did not 'fit' in well with the general high school population. The increased placements of at-risk and special populations' students in vocational schools did not necessarily lead to improved instructional resources for vocational schools to meet the academic and socioeconomic needs of these students. The at-risk and special populations' students were less likely to complete their vocational programs and obtain successful employment. The corresponding decline of the success of many vocational students during these changes led to further enhancement of the poor image vocational education developed.

The dilemma for vocational schools has not been the increased placement of at-risk and special populations' students in vocational schools. Cardon (2000) called the enrollment of at-risk students in technology education courses "pervasive" (p. 3). The author identified that no studies had been completed to understand why the students chose technology course and their views about their education (p. 3). However, in this study the reasons the students gave for choosing a technical education spoke to the dilemma currently in practice in vocational education. Five of the eight students in this study stated they would have dropped out of school if they could not attend the technical education course (p. 9). Cardon (2000) called for further research to "determine curricula that can assist at-risk students to experience success in school" (p.11). The current dilemma pertains more to a confliction between the increased placements of these students in the vocational schools while there has been a simultaneous dwindling of

support from stakeholders towards vocational education. The question developed about the role of vocational education given the unique circumstance of placements of at-risk and special populations' students in vocational schools? Can changes in educational policy enable vocational education begin to address the needs of special populations' students and simultaneously retool to meet the demand for a highly skilled labor force in the 21st century?

The role of secondary vocational education has been under close scrutiny from the Bush administration. The president called secondary vocational education a 'relic' and has instead promoted more college degree emphasis for high school students. The statistics for students who enter college and graduate even in five years remains low. The cost to attend four year universities has risen. Community colleges remain torn between their affiliations with four-year universities and their need to attract better academic students so they are not 'dumbed down'. Another striking issue is how irrelevant the high school diploma has become unless the students are on a profession, pre-college track. Employers continued to call for educational changes to enable high school graduates to have basic skills in reading, math, and science. However, employers also called for high school graduates to have softer job-related skills. Students who do not see the relevance of why they need information educational policy makers deemed important have become reluctant to learn. Wallis and Steptoe (2007) identified how ill-prepared students are in with the "back-to-basics climate of NCLB" (p. 52). The authors questioned whether our schools can aid students to adapt to the information age of the 21st century. Communication skills and the students' emotional intelligences need to become priorities in education (p. 53). They added the students will achieve with "the right balance between such core knowledge of what educators call 'portable skills'—critical thinking, making connections between ideas and knowing how to keep learning" (p. 54). In order for these goals to be achieved educators

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dialogue with the students will have to improve. Communication skills and other 'portable skills' can become vital components of curriculum design if students believe they are heard and empowered in the changes necessary for their achievements. The definition of student engagement developed from this research hinged on the students and their perspectives of what learning meant to them. The study of Student engagement (1998) identified that "knowledge is not fixed but provisional and debatable (p. 7). Students' voices were included to develop a connection with the students' experiences with curriculum (p. 7).

Brooks (2007) asked policymakers to reconsider the focus of education. The author identified that "[e]motional engagement is the essence of information processing and learning" (p. B-7). He believed the focus on school improvement was not realistic given the lives of our students in today's society. Instead, policymakers may need to address the actual improvement of the students' lives to promote education (p. B.7). Assessment strategies for levels of engagement and realistic career objectives for some students who enter the vocational school may not be the first priority. Students with numerous disadvantages and considered 'at-risk' were not able to immerse themselves in the individualized and competency-based instruction found in vocational education. These students had not have acquired the academic or socio-emotional skills necessary to engage themselves in the vocational school environment.

The 'critical question' asked in this study was what processes of engagement did the students have related to their career objectives when they entered the vocational program? Student engagement has become a focal point in educational policy. Students today no longer learn because they are told to do so. Instead, students question the relevancy of learning. The increase in at-risk and other special populations' students in our schools required educators to reconsider their educational philosophies and implementations with regard to the processes

students use to learn. Students with diminished processes or abilities to learn because of socioeconomic, academic, or other factors require new interventions to promote their internal, student-initiated engagement in learning. Internal student engagement was noted in the research to require teachers to assess students' engagement in ways far different from the previous methods used to assess students' engagement. This study hoped to exemplify how students were capable of self-evaluations, commitments to learning, and abilities to choose to change when they were provided with the environments which complimented their internal initiatives

In this study there was a strong emphasis on holistic assessments of the students. What were they thinking? This was important to the research because as Brooks (2007) stated,

> schools filled with students who cannot can't control their impulses, who can't focus their attention and who can't regulate their emotions will not succeed, no matter how many reforms are made… (p. B-7).

How did their lives outside of school affect their education? How could educators better assess the students' engagement processes when they entered a vocational school for the first time? In order to understand student engagement, especially for at-risk students, it was necessary to investigate the students' engagement processes through a methodology which encouraged the students to share internal views of themselves as persons as well as students. The interviews appeared to provide the most authentic access to the students' views of themselves. Triangulation of the interview data from the students and the teachers between the students' permanent records and the anecdotal observations of the students produced holistic student assessments.

At-risk students enter the vocational schools with substantial socioeconomic, educational disadvantages, or emotional and learning support needs. It was noted in the research there was a 40-50 percent placement of special populations' students in vocational programs. These student

placements did not include unidentified at-risk students who enter vocational programs. A question noted in the literature and also by the teachers in the study was whether the students made conscious, career-oriented decisions to change their schools or were the students' placements in the vocational school directed more externally by the students' district administrators? The teachers noted that students who they believed were placed in the vocational programs as an 'alternate' education plan appeared not to be as engaged to them. The students who entered the vocational school rather than drop out or fail out were also identified by the teachers to have academic disadvantages and/or behavioral issues which impeded their learning.

Some students were considered academically at-risk because of extensive absenteeism or because they stated they were potential dropouts. In the vocational program the students were able to identify a 'Sense of connectedness' to the vocational program they selected which appeared to encourage their engagement in learning. As noted in the research, for most students to achieve academically they needed to take ownership of their learning. van Zolinger (2002) considered this a student-centered method of education. He indicated a positive relationship between the students' interests and improved academic test scores. (p. 218) The students' responses were scored high for their 'Sense of connectedness' toward the vocational program. The 'Sense of connectedness' included the subsections of the students' 'Personal Experiences', how they perceived the 'Vocational school as more interesting' and whether they chose 'Involvement in planning' their education. Wehlage, et al. (1989) identified that

> [s]tudents who are academically and/or socially engaged with their school's programs are more likely to persist to graduation, while those who are estranged from them are most likely to drop out (p.177).

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A question to consider is whether students who enter vocational schools without a 'Sense of connectedness' to the vocational program they're placed in have a more difficult time succeeding? The 'Sense of connectedness' appeared to provide the students with an internal force which gave them additional momentum as they tried to overcome their educational disadvantages. Other assessment strategies besides interviews to ascertain this quality of engagement in the new vocational students could include middle schools career explorations with hands-on applications and career-focused personality inventories to assist the students with career selection based on their personality traits and interests.

The students were asked to evaluate themselves in the first interview. The students' responses for 'Student evaluation for levels of interest and motivation' appeared strong. However the inverse occurred when the students expressed themselves for the 'Response to hard/boring assignment' in which the results were weak. These opposing results appeared to validate the students' interest in health careers and the accompanying academic disadvantage many of them entered the vocational school with.

The question developed as to how to support the new students' interests in the vocational program and simultaneously address their academic deficiencies? van Zolinger (2002) believed that positive relationships occurred between the students' interest and their academic performances. The author identified how the students' learning was encouraged by their improvement in environmental situations similar to those found in vocational schools which fostered social and communicative skills in students (p. 218). The social and communicative skills van Zolinger (2002) identified which are also woven into the vocational curriculum include the student working independently to solve complex problems and planning one's own work (p. 218). The first year of vocational curriculum could include substantial remediation of academic

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skills in reading comprehension, math, and science to address the students' academic deficiencies and support their choice of a vocational program. Also, vocational curricula contain highly technical knowledge. Without academic remediation new vocational students who are academically disadvantaged may become frustrated and loose valuable engagement potential.

The other consideration of students' with poor academic backgrounds involved their placements in the vocational schools based on their previous poor academic performances in their academic schools. Did the students who entered the vocational school make conscious, career-oriented decisions to change schools? Theses students may not have a 'Sense of connectedness' observed in some of the students in the study group. In the research Rojewski (1997) encouraged educators to be cognizant of whether vocational students were 'selected' or they selected themselves into the vocational programs. He believed this was a determining factor for the students' levels of engagement (p.13). Students who entered vocational schools with academic disadvantages were questioned by the author who was unsure of how much initial engagement or commitment the students had when the entered vocational programs?

Yet, the data analysis appeared to indicate that for some students academic disadvantage did not mean their lack of engagement to the vocational program. The students expressed strong interests in health careers and in some instances the students' interests led to their improved academic performances during the year of the study and their continued stated motivation towards their career objectives.

The vocational program provided the students with individualize instruction and more time with an instructor than most academic programs. The students were also encouraged to develop independent learning in the vocational program. Many students identified the environment in which individualized instruction and the independent learning were factors as

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one which promoted their internal engagement. Many of the students were observed to readily adapt with the self-determination necessary to manage their daily assignments. It was noted that self-determination was first evident for those who selected the vocational school compared with the students who may were likely placed in the vocational school. In the report "Student engagement in learning and school life: The Executive Summary" (1998) the student attributes associated with their engagement "begins with the student and is manifested through various behaviors (p.13). The internal dynamics of the student and his or her capacity to make commitments led to student engagement that was self-motivated. It this method of learning, the "student is focused on his or her own learning, has a recognized stake in it and takes part in establishing what he or she wants to learn" (Student engagement, 1998, p.13).

The students' self-evaluation skills were an important aspect of engagement identified in the literature and the study. For example, when students similar to Patty, who was observed with minimal self-evaluation skills or interest in the vocational program, enter the vocational schools it is important to address the students' issues as possible in the school year. Self-evaluation skills in the students may be considered a corner stone of the 'individualized' instruction and competency-based education methods of instruction in vocational education. Therefore, the quality of the students' self-evaluation skills may reflect their success in the vocational program. Cushman (1994) noted earlier strongly supported the concept of student self-evaluation. Engagement was encouraged in learning when the students' set up and evaluated their goals. He believed the students could participate more in how they learned which promoted engagement. Most importantly, Cushman (1994) believed that education reforms are dependant on the students' participation because engagement is an ongoing process, rather than an absolute behavior (p. 1).

The students' 'Self evaluation skills' appeared to support Cushman's (1994) concept of engagement as a process of which the students could become self-evaluators. Many of the students acknowledged their absent or poor responses to hard/boring assignments. The students identified responses which were scored over (.70).

The students' socioeconomic backgrounds appeared to affect their processes of engagement as much as if not more than their academic backgrounds. Most of the students entered the vocational school to obtain employment in the health field and to go on to a postsecondary health career program. As noted earlier, there was another, less obvious, set of reasons the students chose to leave their academic schools. The students identified interpersonal problems with teachers and other students or peer pressures to conform to certain dress codes or cliques in their former schools without the economic advantages to do so. Rockwell (2001) identified students who had divergent patterns of development in either the cognitive or the social-emotional domains "often fail to experience a sense of belonging, achievement, or power through school related activities (p. 16). Therefore, the students' choices of vocational education seemed not only to involve their educational goals, but appeared to address other facets of their lives.

An example of how the students' choices of a vocational education addressed other facets of their lives was evident in the responses the students expressed towards group learning. It was noted in the research that group work provided the students with a means of expression of their thoughts and perspectives as well as listening to other students (School Reform WebCenter, p. 3). Group work appeared to provide the students in the study with a possible forum for the renegotiation of their peer relationships which are vital to adolescents.

Noted previously, the students in the study group met at least one of the criteria for 'at-risk' consideration. Most of the students had multiple risk factors. The risk factors previously identified included high absenteeism, poor grades, low test scores, low self-concept, history of behavioral problems, inability to identify with other people, employed full time while in school, low socioeconomic background, and feelings alienation and isolation. The dilemma identified in the research about at-risk students and student engagement became apparent in the study. How would the students in the study who were at-risk benefit from new concepts of student engagement? The goals of student-initiated engagement were to promote the students as 'evaluators' of themselves and to assist them in their structuring of 'meaningful student involvement' from the inside out (Fletcher, 2003, p. 19). Cook-Sather (2002) identified that students need a forum for their voices. The student interviews provided the forum for the students in the study to express their meaningful student involvement. The interviews provided the Primary Investigator with a means to possibly interpret and understand what high school students might think when they leave their academic school and enter a vocational school.

The study group of students offered a diverse population of interests and abilities in the students. The implications for policy and practice determined for the students in the study may be applicable to other vocational students because the study group contained variables in the students which represented larger vocational school student populations to some degree. Several factors which were assessed about the students in the study aided in the identification of their processes of engagement and how or whether their processes of engagement promoted their career objectives. The factors which were assessed included the reasons stated by the students for their placement in vocational schools, the students' academic backgrounds, their socioeconomic backgrounds, and their stated career aspirations or objectives. Each factor affected the students'

processes of engagement when they first entered the vocational school and during the school year. For example, the students' socioeconomic backgrounds appeared to have diminished the students engagement processes from the explanations the students shared about their lives. Common threads of other extraneous factors about the students in the study were also found to be interdependent with the students' processes of engagement. The common threads appeared to either enhanced or diminished the students' processes of engagement.

In the future, similar individual assessments about the students' processes of engagement when they enter vocational schools could be useful to determine which interventions would enable the students to gain more from their vocational school placements. The first intervention affects students who are academically advantaged. The students with academic advantages often return to their home school or become bored in the vocational school and their grades drop because they were not challenged enough in the vocational schools' academic curriculum in comprehensive vocational schools. Students with academic advantages appear to require a second academic track in the comprehensive vocational schools from which they can attain advanced credentials in their vocational program or prepare to attend college. A separate academic curriculum for academically advantaged students in the comprehensive vocational schools would encourage higher functioning students to enter and remain in the vocational schools. Students with academic advantage could also be placed in vocational programs with postsecondary articulations or advanced standings curricular agreements for similar reasons.

The second intervention affects students who are at-risk and placed in vocational programs because of their behavioral problems. The at-risk students with behavioral problems may require educational interventions directed towards necessary behavioral changes so the students could participate more fully in the school-based and work-based learning environments

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found in vocational education. Behavioral programs would encourage at-risk students with behavioral problems to reconsider for themselves what processes of engagement they have and would need to develop in their education.

The third intervention affects students who are academically disadvantaged. These students may need remediation before placement in the regular academic classes in the comprehensive vocational school to avoid the development of behavioral problems. Behavioral problems could develop or continue with the students because of their frustrations when they can not manage either the academic or highly technical vocational work.

Both groups of students, the students who are academically disadvantaged or the students who have behavioral problems, may be seen by their peers as impediments to the learning of the other students in the classroom, especially in the fast-paced, competency-based vocational classrooms. This could create further negative reinforcements for the students who are disadvantaged or have behavioral problems. The students would not find the vocational school a place for them to find a fresh start in their education.

In conclusion, Wenrich (1996) asked educators to reconsider how we educate non-college-bound students or students who do not go directly to college from high school. The author agreed with James Conant's views about comprehensive high schools which could provide our students with academic and vocational curricula. Wenrich (1996) quoted Elizabeth Dole, then Secretary of Education who describe students who did not enter college directly from high school and did not have marketable skills "the forgotten half" (p. 1). The author describe a 'bifurcated curriculum' for schools to address the students who planned to attend college directly from high schools and those students who planned to seek employment after high school graduation. The integration of the educational philosophy of a bifurcated curriculum between

more academic and vocational schools may lead to significantly better placements for students in appropriated curricular tracks in high schools and the best use of our vocational schools to prepare all students for the 21st century.

4.1.4 Reflections on Methodology

The case-study, qualitative methodology included interviews of the students and teachers which were triangulated with data from the students' permanent records and anecdotal notes of observations of the students during the school year of the study.

The five qualities of engagement identified from differing sources in the research were used to develop the interview instruments. The validity of the five qualities of engagement was enhanced from their multiple sources of identification in the research. The statement of the problem reflected the intent of the research. The importance of educators to understand the engagement processes of students when they enter vocational schools appeared to be a relevant inquiry. The definition of the students to include more fully the special populations' students could have provided additional relevance to this research. The research questions developed for the study seemed redundant when they were later applied to the findings in the study. An alternative form of inquiry could focus more on the students' perceptions of their learning and their teachers with more specific questions about the students' selections of vocational education.

The sample population was limited to a small group of incoming Health Assistant students and the vocational teachers from the study school. The random selection was hindered by this process and may have led to skewed analyses and conclusions.

Initially, surveys were considered as an instrument to obtain the data about student engagement from the participants. Previous researchers employed survey instruments for data

collection about student engagement. However, the survey instruments in the previous research did not address the concept of student engagement as processes which initiated from the students. The concept of student engagement as processes was a premise developed from the review of the research for this study. Therefore, interviews of the participants were selected as the instruments for data collection.

The structure of the interviews allowed for participants' responses to prepared questions and elaborations. The structuring of the interviews was useful to the novice Primary Investigator in the data analysis. Elaborations by the participants were important in the data collection because the participants' elaborations appeared to diminish researcher bias during the interviews when they selected the directions and contents of their interviews.

A strong negative factor in the methodology pertained to the interview questions developed from the research. The focus on the processes of student engagement did reflect the intent of the research. However, the research questions developed prior to the beginning of the methodology often did not reflect with enough clarity the engagement processes the students might have had when they entered vocational schools for the first time. Therefore, the data obtained from the participants' interviews was not often useful to use to answer the research questions.

The interview questions were also inadequate to obtain information about the students' engagement processes. An example of an inadequacy in the interview questions occurred in Student Interview 1. None of the research questions developed in the methodology specifically addressed the needs of the at-risk students. This was an important omission since all of the students in the study group could have been classified or were classified as at-risk based on the criteria established from previous research or the study schools' records. Even without the use of

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the previous criteria of at-risk factors developed from previous research, all of the student participants were observed to elicit many of the general academic and/or socio-emotional issues in their backgrounds to meet the broader definitions of students-at risk.

There was a large amount of 'extraneous' data obtained in the participants' interviews. The extraneous information became an integral part of the data analyses. The extraneous data was incorporated into the data analyses after the interviews were completed. This data or information about the students was triangulated with the students' permanent records and anecdotal observation notes to strengthen the validity of the analysis. The student information from the teachers' interviews was also much more inclusive than what was expected from the interviews questions. This student data or information was also triangulated with the other data in the study. However, the extraneous data was unforeseen and required much additional time to analyze.

The interviews were structured with some open-ended questions so that the participants could elaborate. Student engagement included communication skills from the students towards their surroundings. The interview design developed appeared to provide the students with a forum to demonstrate their communication skills. The teachers often stated that they found the interview design conducive to dialogue about the students and other vocational education issues.

The dual role of the Primary Investigator as the students' vocational teacher was both an asset and an impediment to the research. It was difficult for the Primary Investigator to remain unbiased during the interviews and other meetings with the students because the need for the students to develop positive student-teacher relationships. It was noted that the more positive the student-teacher relationships became during the school year, the more it was observed that the

students were willing to include details and inner perspectives about themselves as students in the interviews or during other conversations.

The methodology of the interviews was time consuming. The data analysis of the qualitative data was often overwhelming for one researcher to complete without computer assistance. The Primary Investigator obtained, transcribed and analyzed the interviews of the participants. This method seemed more involved than the conduction of surveys. However, the transcriptions yielded information which may have been missed or misinterpreted with surveys or note taking. The common threads of meanings about the students and engagement which ran through the participants' interviews were identified in the details of the conversations not usually accessible from surveys. The identification of the common threads of meanings led to the emergence of the themes which were used to address the research questions.

The data analysis included the development of matrixes from the research to score the participants' responses. From the scored results on the matrixes, percentages were developed to quantify the participants' responses. This very simplistic design was useful for data analysis of many interviews by a single researcher. In the application of quantitative properties or values to qualitative information there was the large potential for researcher bias and human error. To minimize the possibilities of researcher bias and human error, the responses were cross-referenced between the sets of interviews. For example, it was noted that responses from students which received lowered scores in the first interviews were interpreted and scored in a similar method throughout the entire study.

The development of common threads appeared to provide more reliability and validity to the analysis of the data. An example was the common thread of the explanatory style of the

vocational teacher which occurred in many of the participants' interviews. Another example of a common thread was the students' responses to hands-on and kinetic learning.

The access to the students in the interviews was an exceptional opportunity to glean information from them about their engagement processes and other issues which affected their learning. The interviews may have produced more data if they had been longer and perhaps more frequent during the school year of the study. However, the students often selected their own length for the interviews and they appeared comfortable with their choices.

An interesting method to determine the students' engagement processes may be to enable the students' to interview their teachers, without reservations. These interviews would provide the students with a window into their teachers' engagement processes without the simultaneous occurrence of a lesson. The questions the students selected would be of interest to researchers about student engagement processes. What questions did the students select in their inquiries? Interviews of the teachers by the students may also encourage the students to perceive their teachers more as persons, like themselves which could promote positive student-teacher relationships. Student-teacher relationships were identified as vital components of student engagement processes in the previous research and in the study. Student-initiated engagement occurred more often when the students perceived their teachers as receptive to them. The students' perceptions of their teachers as receptive to them enabled their processes of engagement to be maintained and advanced.

The inclusion of more direct inquiry about the at-risk criteria for the student participants may have provided additional information to researchers about at-risk students in the vocational school. At-risk student concepts were incorporated throughout the study, especially in the literature review. However, the questions to the teachers and the students in their interviews did

not focus on the at-risk student concepts. The information from specific questions about at-risk student concepts in education may have provided important information about student engagement processes. The information obtained about students who are at risk was secondary to the information obtained from the research questions about student engagement processes.

SUBCATEGORIES OF RESPONSES FROM STUDENT INTERVIEW 1 QUESTIONS

Question #1 Attention to work: Attention to details: Concentrates easily

Subcategories:	Mind wandering	11
	Concentrates easily	7
	Concentrates better in group activities	2
	Teacher affects students' concentration	3
	Concentration more difficult with written assignments	8

Question #2 Initiative-taking behaviors Finishing project; Seeks out help; Describes self as persistent

Subcategories:	Working at own pace	8
	Persists with hard assignments	4
	Does not usually persist with difficult assignments	8
	Would request teacher's assistance for work	9
	Would not request help or may work on own	8
	Identifies academic work as difficult	7

Question #3 Sense of connectedness with prior experiences: Personal experiences for choosing vocational school; See vocational school more interesting; Involvement in planning vocational instruction

Subcategories	Know someone who came to the school	8
	Parent or sibling in health field or wished to be in health field or wished to be in health field	11
	Students expressed a strong health career goal	2 uniforms
	Students chose to leave home school	2 dropout
	Students chose hands-on learning	2 peers
	Students identified college or job as reason for choosing for vocational school	10
		7

Question #4 Positive interpersonal skills: Relationship with teachers and peers; Perception of teacher relationship to the student; How teacher/student relationship affects students' work

Subcategories	Students expressed positive relationship with previous teacher	7
	Students expressed a negative relationship with previous with previous teachers	8
	Students expressed a distant relationship with previous teachers	5
	Students described negative relationship with previous peers	6
	Students described positive relationship with previous peers	3
	Students described 'explanatory' style of teachers in new school	5

Question #5 Self-evaluation skills: Student evaluation for level of interest and motivation; Responses to hard/boring assignment

Subcategories	Students expressed clear level of interest in the school	9
	Students identified learning something new	6
	Positive response to hard/boring assignment	6
	Negative response to hard/boring assignment	8

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