FORMING COMMUNITIES OF PRACTICE: EDUCATION OF HEALTH PROFESSIONALS IN INTERPROFESSIONAL SETTINGS

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This qualitative study will describe and analyze the perspectives of health professions students, teachers and administrators involved in interprofessional learning experiences. The primary purpose of this study is to understand the phenomenon of participation in interprofessional learning experiences and the extent to which the elements of communities of practice are evident in these learning experiences. Interprofessionality indicates the development of a cohesive practice between professionals from different disciplines. The theoretical framework providing a context for this study is social learning theory, particularly Lave and Wenger's theory of communities of practice. A grounded theory study will utilize data obtained from semi-structured interviews and researcher memos to identify themes and concepts. The participants are graduate students, faculty and administrators from an interprofessional fellowship in developmental disabilities. The research will have implications for educators and administrators of educational programs who want to design, initiate, and sustain effective programs that promote interdisciplinarity. This study will contribute conceptually to the theory of effective interprofessional communities of practice, and to praxis through the development of a model of an effective, interprofessional community of practice.

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PREFACE

Seven years ago a teacher said to me “If getting this degree hasn’t changed you, you haven’t gotten your money’s worth.” I have changed in the seven years since I began this program. I would like to thank some of the people who supported that change.

A few years ago I attended the first class of a course, Anthropology of Education, because I thought it would meet a research requirement. While Dr. Porter quickly clarified that the course no longer filled that requirement, I found myself interested in the idea of culture and higher education. Dr. Porter began my interest in the culture of the professions and the theory of communities of practice. She then was willing to become my advisor and spend so much time developing my thinking and writing. Dr. John Weidman provided the first glimpse of the process of completing a dissertation and practical strategies for accomplishing the feat. Dr. Charlene Trovato provided the expertise of UCLID and allowed me to be able to interview the participants of that fellowship for my study. Finally, Dr. Olshansky held a monthly qualitative interest group that provided a supportive community as I assembled the courage to begin the study. She was willing to continue on the committee, even though she moved to California.

At home, my husband Chuck and my children Sarah, John and Scott and all my family supported me in so many ways. Finally, my dogs continually kept me company at the computer and reminded me when it was time to get some fresh air.

As John Dewey says, “Arriving at one goal is the starting point of another.” I look forward to obtaining my next goals and am thankful for all who helped me reach this one.

1.0 INTRODUCTION

1.1 SIGNIFICANCE

The quality of health care in the United States has been called into question by experts, professionals and the public for a long time. Funding, access and quality issues are all debated, but medical errors were brought to the forefront of the discussion with the report *To Err Is Human: Building a Safer Health Care System.* The report documented the "serious and pervasive nature" of the issue concluding that "the burden of harm conveyed by the collective impact of all our health care quality problems is staggering (Institute of Medicine, 2000).

The Institute of Medicine followed the report *To Err Is Human,* with a study of health care systems, *Crossing the Quality Chasm (*IOM, 2001). While the focus of that report was the needed transformation of health care systems, redesigning health professions education was seen as critical to improving the quality of care. A group of 150 leaders attended a summit in 2002, focusing on health profession education. The value of collaboration was frequently repeated, as was the disconnect between the increasing collaboration in the practice setting and the continuing silos of health professions education. In the report coming out of the summit, *Health Professions Education: A Bridge to Quality* (IOM, 2003) five competencies were presented as essential to redesigning our care system and improving quality. Working in interdisciplinary

teams was one of those competencies and integrating that collaboration throughout the practioner's education was suggested as the way successful collaboration could be achieved.

The Institute of Medicine is not alone in calling for integrating the education of health profession students. In 1988 the World Health Organization (WHO) published *Learning Together to Work Together for Health*. This paper called for interprofessional education as an important area for development of improved health outcomes (WHO, 1988). The Pew Health Professions Commission (O'Neil & Pew Health Professions Commission, 1998), and the WK Kellogg Foundation (Lasker & Weiss, 2003) have called for the administrators of health science programs to create curricula that are more interdisciplinary so that teamwork in the health care setting will more easily occur. The American Academy of Medical Education has developed an interprofessional education working group to address implementation at medical schools (www.aamc.org/meded/initiatives). The strategic plan of the American Academy of Colleges of Pharmacy is calling for the significant improvement of interprofessional education (http://www.aacp.org/site/tertiary) and The American Association of Colleges of Nursing has interprofessional collaboration as an essential to their curriculums at all levels from baccalaureate to doctorate (www.aacn.nche.edu/education/pdf).

Despite all these calls, health profession education in the United States still occurs overwhelmingly as distinct, separate programs with no integration of the education of each discipline. There are many health care disciplines, and although they share knowledge needs with each other, the education of each distinct discipline occurrs in separation from the other. The disciplines of nursing, medicine, physical therapy, pharmacy and many others educate their students in isolation from the students of other professions and in an artificial isolation of their body of knowledge as though it were distinct from all the others.

While there has been an unprecedented call for interprofessional learning experiences for health profession students, research on the subject is limited. Existing research has focused primarily on structural or administrative issues in programs (Clark, 1994; Carpenter & Hewstone, 1996; Harris et al., 2003). A structural viewpoint emphasizes issues related to the structure of the schools including the university, curriculum, and faculty incentives.

Another body of research has come out of Great Britain and Canada (Carpenter, 1995; Parsell & Bligh, 1998; Reeves, 2000; Mann, et al., 1996 Tunstall-Pedoe, 2003). One systematic review of research on interdisciplinary learning found that the majority, 46%, of the studies came from researchers in Great Britain (Cooper, Carlisle, Gibbs and Watkins, 2001). While these studies have some value for those designing programs in the United States, the differences in cultural approach and the state health care system in these commonwealths, limits their applicability.

A gap exists in research studies conducted in the United States. Much of the literature on interprofessional education in the United States is describes programs (Koch & Williams, 1984; Berger & Schaffer, 1986; Clark, 1999; Hope, Lugassy, & Meyers, 2005) as opposed to research studies. There a also few studies based in the United States taking a poststructural view, focusing on the social environment, power structures and interprofessional relationships.

This dissertation studies interprofessional interactions from an interpretive stance and a post-structural worldview. Not intending to reveal the single way interprofessional programs should be developed and conducted, this research study reveals the experiences of those in an interprofessional environment comprehensively, revealing themes that can be elaborated into theories and models guiding interprofessional program development in other settings.

Another unique feature of this study is the use of the social learning lens, communities of practice (Lave, Wenger, 1989, 1993). A growing area of interest in practice in Great Britain and Canada. Communities of practice are by definition collaborative, shared learning experiences grounded in and enacted via social transactions. Interdisciplinary learning environments informed by a critical application of communities of practice may be the link to establishing effective, collaborative health care teams in practice settings. This study would begin to address the gap in the research of interdisciplinary learning experiences of health profession students and propose models for learning environments. It would contribute to the literature conceptually, developing a theory of *effective* interdisciplinary communities of practice, and to praxis by translating this study into principles for the design of learning environments that can be utilized to improve collaboration.

1.2 CONTEXT FOR THE STUDY

As the program director for graduate nursing studies at Carlow College my colleagues and I designed a graduate nursing leadership program that was interdisciplinary. The curriculum included leadership courses in the professional leadership program. Students and faculty came from many disciplines. Conversations with students revolved around eye-opening experiences of discovering commonalities with teachers, bankers and others. As leadership issues were discussed they realized that many professions have the same issues. Unique insights were discovered from looking at health care issues through the eyes of a banker or teacher. Health care is unique in some respects, but much can be learned from listening to others. This experience convinced me that interdisciplinary education provides students with a greater depth

of understanding of the issues of health care and an improved ability to work with diverse groups of people.

My belief in the value of interprofessional education has continued to grow throughout the seven years of my doctoral studies. For years I have read and written about the subject. Recently I had a chance to speak with others and become a part of a community committed to the development of interprofessional education. In October of last year, at the University of Minnesota a conference entitled "Collaborating Across Borders: An American-Canadian Dialogue on Interprofessional Health Education" brought 250 educators together for the first time to discuss the issue. I was there to present my study. The presentation was well received, looking at the experience from a cultural, community-building perspective. It led to a presentation at a medical school in Ohio, NEOUCOM and other contacts interested in my work.

1.3 STATEMENT OF INTENT

The focus of this dissertation study is on interdisciplinary, or more specifically, interprofessional education as examined via a grounded theory study of interprofessional collaboration in health professions education. The proposed study will describe and analyze the participants' experiences of interprofessional learning and the initial formation of a community of practice within groups of health profession students, faculty, and administrators.

Through an analysis of interviews, activities, and texts I will look for indicators that the group has formed a community of practice and for other themes generated by the participants. The theoretical lens for the study, situated learning, put forth by Lave and Wenger (1991) takes the view that learning is a social activity, and more specifically, that learning occurs as a function

of a community. Developing an identity as a member of a community and becoming knowledgeably skillful are part of the same process(Lave,1993). This dissertation will seek to identify features of an effective interdisciplinary community of practice (EICOP), looking for the significant features that characterize the community at different stages. Then I will suggest how these aspects might facilitate strategies and learning constructs that would aid in the development of a model interprofessional learning program.

1.4 RESEARCH QUESTIONS

In their disciplinary schools, health professions students have formed communities within their respective practices. As these students come together in an interprofessional learning environment does an interprofessional community of practice develop? The achievement of an effective interprofessional community of practice promotes effective collaboration in the health care setting. In this study I will compare and analyze newcomer and experienced participant's perspectives.

The study questions were developed based on Wenger's hallmarks of a community of practice. Meaning and community are two primary processes that contribute to the formation and maintenance of a community of practice. Questions one and two relate to the concept of meaning. The second concept of community is indicated by three elements; mutual engagement, joint enterprise and a shared repertoire. The presence of these elements would indicate that an interprofessional community of practice is forming among the members of the UCLID community. Questions three and four relate to this component. Finally, question five captures any other themes that are generated by the data.

Meaning making

1. How are the components of participation and reification evident and significant?
2. How do the components contribute to the participant's ability to generate and articulate the meaning of the interprofessional community of practice (IPCOP) for a) themselves and b) as an entity itself?

Community Building

3. How do participants demonstrate and articulate mutual engagement, joint enterprise, and a shared repertoire?
4. How do these components foster a sense of interprofessional community?

Novel/Other

5. Are there other themes generated by the participants?

The goal of this study is to synthesize these findings to generate hallmarks, criteria and strategies for fostering an effective interprofessional community of practice. Identification of the components of a community of practice that arise as an interdisciplinary group of health profession students meet, will be a first step towards the identification of a theory of an effective interprofessional community of practice. Looking at differences in novice and experienced groups will identify the issues of building a sustainable community of practice that will carry through from the educational experiences into the practice arena of health care.

2.0 REVIEW OF RELATED LITERATURE

In this chapter I will set the context for the study by reviewing the relevant literature. The changing dynamics of health care delivery is at the core of the need to redesign health professions education. I will set this background briefly, then review the literature on interprofessional learning environments by discussing the pertinent definitions, literature related to the challenges and barriers, best practices in the literature, major trends and models, then finally the gaps in the literature and the implications this has for the study.

Over the past two decades, largely in response to the initial World Health Organization call for interdisciplinary education in health profession education, there has been a significant amount of literature written on the subject. Some of it is based on research, but most of what is written is descriptive of existing programs. With the Institute of Medicine's integration of interdisciplinarity as a key component of its call for the redesign of health professions programs, the need is even more urgent for studies that focus their work in new ways on the subject.

2.1 CHANGING DYNAMICS OF HEATH CARE

The need for interprofessional education in health care can be traced to the increasing complexity of health care delivery (Chassin et al., 1998). At the turn of the century health care was primarily an interaction between a physician and patient. From that point on there has been a steady increase in the number of people involved in that patient's care. Hospitals became a strong institution with more and more technology and more and more people attending to that patient. Each profession developed their curriculums and struggled for identity as a true profession. Within each profession new roles have developed. In nursing there are nurse practitioners and clinical nurse leaders. In medicine, many specialist roles have developed. Not only their curriculums are separate, their physical space is separate (Aiken, L., Clarke, S., Sloane, D, 2002). If you walked around the campus of an academic health center you would find the medical school separate from the nursing school and the pharmacy school.

In the United States today medical care and health care is delivered by many people with little coordination. The basic elements of care remain essentially the same since those early days but it is delivered in a very complex way. That complexity has created problems in care coordination A patient in the hospital today may be seen and treated by many many physicians. There are the nurses at the bedside, nurse clinical specialists, nurse practitioners. The respiratory therapist and the social worker visit the patient to deliver therapy and determine discharge needs. The pharmacist has at various times been in the basement, or on the unit delivering medicine and monitoring side effects.

This complexity is one of the major sources of error. Errors lead to thousands of American deaths and hundreds of thousands of people who have become sick or injured (IOM, 2003). Much focus of reform considers health system and hospital redesign with implementation

of quality improvement techniques from business. These efforts have been only partially successful.

In addition to the issue of complexity, health care is moving from a focus on acute care to caring for those chronically ill, often in community rather than hospital settings(Institute for the Future, 2002). As the percentage of those over 65 increases the type of care required moves more from the diagnosis and treatment of an acute episode of disease, to a milleau of treatment requiring coordination of many specialties.

As health care shifts focus from acute care to chronic care and a shift from a model of cure to one of controlling symptoms and maximizing patient's quality of life, there is a different type of knowledge and care required. The number of professionals caring for a patient grows. Each specialization has its own vocabulary and approaches to problem solving (Hall & Weaver, 2001). Many professionals come together to care for a patient. Each practitioner brings to the table a cognitive map (Petrie, 1976) which becomes entrenched when all encounters are within a discipline-specific view of the world.

Interdisciplinary education in the health professions has been advocated for decades as a means to overcome (Magraw,1968; Spitzer,1975; Ivey et. al, 1988; O'Neil, 1998; IOM 2003) the issues of complexity and care coordination. Related literature on interdisciplinary education will be discussed in the next sections of this chapter. I will use the term interprofessional because it more exactly captures the type of coordination under study. I will also use both terms, learning environment and education. Learning environment indicates a broader range of formal and informal learning than the term education.

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2.2 INTERPROFESSIONAL LEARNING ENVIRONMENTS

The studies reviewed here are primarily structural, looking at structural and administrative barriers that make the development of an interprofessional educational program difficult. A gap in the body of literature is in a post-structural examination of the experiences of students, teachers and administrators in existing programs, from a sociocultural perspective. This perspective is important to understanding the basis for an effective interprofessional learning environment.

2.2.1 Definitions of interprofessional education

This study explores interprofessional education. The use of the term interprofessional to describe these programs is a recent development. Interdisciplinary is a term that has been used to describe collaborations of students from different health professions since the 1970s. The broader term interdisciplinary, but now is more commonly used outside of health profession education. There are many associated terms and much controversy about the proper use of each term. In this section I will address the operational definitions of the term interprofessional and the current definitions of interdisciplinary and associated terms.

Although the movement to restructure the disciplines grew gradually through the twentieth century, in the 1970s the growth of collaborative research, hybrid fields, and team teaching caused the first international investigation into the concept of interdisciplinarity. The Organization for Economic Cooperation (OECD) produced the following definition:

Interdisciplinary- An adjective describing the interaction among two different disciplines. This interaction may range from simple communication of ideas, to the mutual integration of

organizing concepts, methodology, terminology, data and organization of research and education in a fairly large field. An interdisciplinary group consists of persons trained in different fields of knowledge (disciplines) with different concepts, methods and terms organized into a common effort, on a common problem with continuous communication between the participants. (OECD, 1972)

This definition attempts to describe the two main strands of thought about the concept. On the one hand, interdisciplinarity is viewed simply as the involvement of more than one discipline in pursuing a particular inquiry. At the other end of the integration spectrum, interdisciplinarity as seen as leading to a unity of knowledge. The metaphor of crossing boundaries was used by Klein (1996) to refer to the spatial metaphors of turf or domain. The use of the metaphor calls attention to the ways disciplines stake out differences and define and protect their discipline. The metaphor of bridge building is often used to describe the simple communication utilized at the boundaries in attempts to bridge the gaps created by these divisions. Lattuca (2001) views the concept as a continuum with informal communication on the one hand, and formal collaboration on the other. Lattuca (2001) and Klein (1990) describe the process as informal communication that leads to more complex forms of interdisciplinarity.

Attempts to define interdisciplinary have created camps with proponents of many versions of the term. Interdisciplinarity achieves more integration than multidisciplinarity which implies a relationship that is mutual, but where there is no apparent connection and where the disciplines are neither changed or enriched (Klein, 1990). In the health professions, the frequently used phrase, multidisciplinary implies the coming together of the disciplines to present information about a case. There is no synthesizing of information involved. Cross-disciplinary implies viewing one discipline, from the perspective of the other. On the other end

of the spectrum, transdisciplinarity implies an overarching synthesis (Rigney & Barnes, 1980, p.126). When transdisciplinarity is achieved, the disciplines become irrelevant, subordinate, or instrumental to the larger framework (Klein, 1990).

In health professions education the term interprofessional is often used, particularly in Europe and Canada, to refer to interdisciplinarity in health profession education. Oandasan and Reeves (2005), in a review of the literature on the subject assert that there is a move towards the use of the suffix "-professional" in the literature. While a discipline is defined as a field of study, a profession is a calling requiring specialized knowledge. The collaboration called for in health care settings implies a broad vision of professional roles, an understanding of multiple professional languages, and a clear conception of collaboration and a set of acquired skills (Knapp, 1998). As educators in the health professions searched for ways to prepare practitioners who can work in a collaborative way, they emphasized interprofessional education, or programs that join the efforts of departments and training courses that have traditionally been separate (Knapp, 1998).

Both the Pew Foundation Report (O'Neil, E., 1998) and the Institute of Medicine Report (IOM, 2003) use the term interdisciplinary, instead of interprofessional education. Interdisciplinary teams in the IOM report are "composed of different professions and occupations with varied and specialized knowledge, skills, and methods. The team members integrate their observations, bodies of expertise and spheres of decision-making to coordinate, collaborate and communicate with one another to optimize care" (IOM, p.54).

Commonalities of all these definitions are concepts of cooperation, integration, and an effort to look at complex problems from multiple perspectives by those with different backgrounds, trained in various disciplines. In the medical profession the term interdisciplinary

often refers to one clinical specialist, say an oncologist working with another specialist, an endocrinologist perhaps. Using the term interdisciplinary education in reference to health professions education would be unclear to those accustomed to this understanding of the term. The term interprofessional has become the norm to define health profession education involving many professional schools, by those writing internationally. The peer reviewed journal focusing on this concept is the Journal of Interprofessional Care.

This study will use the term interprofessional in describing the programs under study. It clearly describes the environment of students from different professions and is the current term used by those most familiar with the field of research. It will avoid confusion and debate surrounding the term interdisciplinary.

2.2.2 Challenges and barriers of interprofessional learning

Numerous studies (Clark, 1994, Harris et al.2003, Barrett, Greenwood & Ross, 1984, Hall, 2001) have suggested reasons for the lack of implementation, or lack of success of existing interprofessional programs in health care education. Clark suggests the problems of lack of communication, collaboration and cooperation that are endemic in US health care settings are a result of the domination of the physician in the traditional hospital setting. The physician's role is to be the expert, and the patient's role is to be compliant (Clark, 1994). However, Clark points out, when the health care student is taken to the community for clinical experiences the focus of power shifts to the patient and the student is forced to broaden his scope of understanding of the problem. The barrier of physician domination will be reduced as more and more health care takes place outside of the hospital setting. This equalization and leveling of the power fields encourages interprofessionalism.

A major study of multidisciplinary health professions educational models in community settings was reported in 2003. This study, funded by the W.K. Kellogg Foundation listed the barriers created by the traditional organizational structure of academic institutions. The structural differences create added issues of different calendars, schedules and philosophies towards care (Harris et al., 2003). Even if these barriers are overcome there are certain costs to the faculty who choose to teach in these programs. Administrators will usually not allot the usual workload release for each faculty teaching in an interdisciplinary course. Participation in these courses are often not recognized equally when promotion and tenure is under consideration.

Finally, Harris discusses the confusion over program goals that can be a barrier. Initiation of programs is often funded with grant money, but each discipline may have differing ideas of the rationale for participation. When funding is withdrawn, the confusion may worsen, leading to the program's demise.

The Harris study is significant in terms of size and duration. The results are based on a five year study involving programs in seven states. The sites were primarily university health care centers, including Michigan State University and the University of Minnesota. Data sources included surveys, site visits, published reports, and a two year follow-up survey. Sustainability elements were identified to assure continuing success of existing programs, particularly if external funding is eliminated. These elements include administrative support, a boundary-spanning leader who is able to work across professions, complementary missions and a focus on clinical practice,

Clark's two articles are descriptive, but come from his experience both teaching geriatrics in an interdisciplinary setting and functioning as a member of an interdisciplinary team. The 2004 article presents a case study description of the challenges and proposes two "laws of

program development." Many of the same barriers are identified in these laws, and other studies. The first law of interdisciplinary programs is the law of academic inertia. Departments will resist change unless some exterior force, like grant funding encourages it. The second law focuses on the dynamic between the positive and negative forces for change.

Mellor describes the challenges in a description of a geriatric team training approach used at eight sites in the United States, funded by the Hartford Foundation (2002). Apart from the typical variety of differences of ages, culture, ethnicity and mental attribute, educating several different disciplines together adds another layer of challenges. Differing experiences, discipline-specific languages and discipline cultures are identified. Each discipline develops its own language and shorthand. In the case of nursing, developing their own language and system of diagnosis was critical to their evolution as a profession. For example, support system means life support equipment to physicians and nurses, but the network of family and friends to social workers. The development of a shared vocabulary and understanding of abbreviations is a stated essential of success in this writing.

Stereotyping by students of one discipline, about the other has been well documented in the literature (Carpenter, 1995; Parsell, 1998; Tunstall-Pedoe, 2003). Authors have argued for interprofessional education to occur in the undergraduate setting to prevent stereotyping from developing (Leaviss, 2000; Herzberg, 1999). The Tunstall-Pedoe study showed that "students arrive to start their training with stereotyped views of each other already firmly established (2003, p.170). Having parents who were health professionals increased the likelihood that the stereotypes exist. There have been no comparable studies of professional stereotypes in practice settings but it is widely accepted that rivalries and stereotypes still exist (Thomas, 1999).

Carpenter, in his landmark study differentiated between views held by students within their own discipline (autostereotypes), and views held of the other group, labeled heterostereotypes (1995). A later work (Carpenter & Hewstone, 1996) evaluated the effects of an IDE program for social work and medical students. The study found that overall attitudes, held by each group of the other, had improved. This positively influenced their ability to work effectively with each other.

Finally, one qualitative study of the subject was reported by Reeves and Pryce (1998). The authors completed the study over 15 months in Great Britain, commissioned by the department of health to evaluate the effectiveness of a specific program called the Community Module. Their theoretical framework was the Illuminative Evaluation Model (Parlett & Hamilton, 1972), called such because of the need to illuminate meanings students attach to their education. Four focus groups were employed involving all the students (18 nursing students, 14 medical students and 4 dental students). A grounded theory analysis focused on the early construction of their professional identities. Student's views were seen as diverse, some stereotypical, others not so. Medical students were cited by others as gatekeepers and transmitters of the traditional culture. The authors also identified "social invisibility of dental students suggesting interesting power issues

Numerous studies have suggested the conditions necessary for shared learning to be effective. Effective programs have leaders who display behaviors that cross disciplinary boundaries and encouraged participative governance (Harris et al. 2003). The leaders are boundary-spanning and could advocate across disciplines. Their style is collaborative, enthusiastic, but realistic. Leaders of interprofessional education emphasize the use of participative governance and culture/value-influencing behaviors (Bland et al. 1999). Teams that

learned together in a setting similar to the realities of clinical practice were more successful (Harris). This was made even more successful if the faculty served as role models in their own practices.

From a curricular standpoint, the majority of articles in the literature state the curriculum should also be patient/client-focused and interactive. The learning should be case study-based and build on a model of student development (Barrett, et al., 2003). The standard curriculum is enhanced by implementing service learning experiences. There should be provision of time for reflection, discussion and leadership development (Clark, 1999). Hughes et al. study found the overarching issue to be student motivation. The curricula should be designed to facilitate this engagement, or the students probably will not do so. Appendix A is a table of research studies of interdisciplinary education in the health promotion and identifies areas for future research.

2.2.3 Best practices, trends and models

Challenges illustrated by the authors discussed in the previous section suggest best practice in interprofessional education would include a leader whose style is participative, enthusiastic and, of course, collaborative. The clinical setting has been suggested as the best setting for interprofessional learning, with a patient-focused, interactive curriculum, designed to facilitate the students' motivation to be fully involved. Finally, administrative support is a key to resolving the structural issues inherent in the nature of the program.

The focus on chronic disease has led to new community-based models of health science education (Clark, 1999). In health care, treatment of patients is moving from acute care settings into the community. In education, service-learning is becoming an important educational model.

These two forces have combined to urge the creation of community-based models of health care education. Community-based models require greater collaboration among the disciplines as the patient is more likely to have a chronic condition which requires therapeutics beyond medical diagnosis and intervention. One of the earliest references is Hohle's (1969) discussion of role definitions and overlap in a public health team. In the 1990's academic health profession models began to develop university- academic partnerships. Smego and Costante (1996) discussed interdisciplinary community practice as an essential aspect of a successful partnership. Researchers in public health have focused attention on the dimensions of partnership of the collaborative team (Butterfoss, Goodman, & Wandersman, 1996; Kegler, M.C., et al., 1998) A measure of partnership synergy, identifying the collaboration essential to interdisciplinary practice was developed by Weiss (2002).

Geriatrics team training has been another trend in health profession education that has developed interprofessional curriculums. The increasing geriatric population gives increased emphasis to these models of learning. In 1979 the Federal Bureau of Health Professions funded 27 geriatric interdisciplinary curricular projects (Panneton, 1982). This led to literature describing courses developed as a result of this funding (Allen, et al., 1984; Clark, 1985; Berger, A. & Schaeffer, S. 1986).

More recently authors have described models of interdisciplinary team training curriculums (Keough, M.E., Field, T. S., & Gurwitz, J.H., 2002; Williams, B.C., Remington, T., & Foulk, M., 2002;). These programs are consistently post-graduate professional development programs as opposed to being integrated into the basic curriculum however.

Finally, the growing involvement of health care providers in the continuous quality improvement initiatives of their organizations require collaborative skills that will need to be

built into current curriculums (Clark, 1999; Dzaibis & Lant, 1998). While there is little written about educational activities related to quality improvement, many programs have used forums and classes for discussion of this as an interprofessional activity.

A growing trend among existing programs to build analytical skills related to quality improvement, is interprofessional team competitions, solving a complex issue. At the University of Minnesota a program was developed known as the Clarion Case Competition. This is a student developed program that focuses on analytical reasoning and business practices by presenting a complex case involving clinical, administrative and policy issues. Teams include nursing, pharmacy, medicine, Health administration and public health. At the end of six weeks teams present their resolution to a panel. The teams present at a dinner with cash prizes and funds to attend the Institute for Health care Improvement Forum. The dinner also includes a speaker in the area of the case. This program has been successful and other schools have asked to have teams at the competition also. The Institute of Health care improvement has invited the Clarion competitors to present at their conference (Retreived 3/10/08 from www.chip.umn.edu).

Best practices in interprofessional education have focused on geriatrics team training, community-based models (Allen, Koch, & Williams, 1984; Clark, 1999;Keough,Field & Gurwitz, 2002). The Geriatric Interdisciplinary Team Training program, funded by the John Hartford Foundation was a national initiative to prepare professionals to work as a team in caring for elderly patients (Mellor, Hyer & Howe, 2002). It was begun in 1996 and is still functioning at different academic centers. Mellor described the issues facing this educational model as discipline-specific languages, different philosophies and cultures and differeng levels of experience. The structural issues have been overwhelming for many programs. They were developed with seed money but some were discontinued when the funding ended.

2.2.4 Gaps in the Literature and Implications

Three gaps exist in the current body of literature on interprofessional education in the health professions. These gaps are articles that are research-based, from a sociocultural perspective and based in the United States. As reviewed in this literature review the majority of the writings are descriptive reporting of programs, the majority of those originating in England and Canada where comparison is difficult due to there vastly different health care systems. Research-based articles focus primarily in structural issues like schedules, faculty incentives and administrative support.

The importance of research studies investigating new models of interprofessional education can not be underestimated. Particularly programs exhibiting sustainability and innovation should be studied. Models developed from this research can then be tested and continue to evolve. Canada and Britain have done many studies due to a concentrated effort on interprofessional education by their governing bodies. They offer much to the reader but their state-supported system is in integral part of the design. This limits the applicability of comparisons with programs in the United States.

This study will exemplify a socioculturally-based research study on an existing interprofessional program in the United States. It will contribute to a theory of an effective interprofessional community of practice, and to praxis through the development of a model based on the theory.

2.3 SOCIAL THEORY OF LEARNING: COMMUNITIES OF PRACTICE

2.3.1 Model conceptual framework

A theoretical starting point for thinking about interprofessional learning is the social learning theory known as situated learning (Lave, Wenger, 1991) and more specifically Wenger's (1993) elaborated theory based on situated learning known as *Communities of Practice.*

Wenger's theory has roots that can be located within social psychology based on the theory of George Herbert Mead (1934). Mead's theory stressed that the self is a social structure and arises out of social experiences. Additionally, as a member of a group, Mead felt the individual adopts the group's attitudes towards social activities. Roots can also be found in the philosophy of John Dewey (1938), who believed in the relationship of experience and education. He saw education as a social process.

Social learning theory provides an interesting lens from which to view interprofessional learning because of its focus on the social and cultural context of learning. Wenger states that learning starts with the assumption that engagement in social practice is the fundamental process by which we learn and become who we are. The primary unit of analysis is not the individual as learner, or the institutions in which they are learning, but the communities of practice that people form as they pursue shared enterprises. Professional students have formed communities of practice as they learned about their discipline. Now they come to the table with disciplinary community established and the culture of their discipline intact in their identities.

While most prior research on the subject has looked at structural issues related to interprofessional education, this study will examine the subject from a post-structuralist perspective. A number of researchers and theorists have proposed theories of learning that focus

on the participant's social and contextualized aspects of learning (Lave, 1998, Lave & Wenger,1991, Greeno, 1998, Resnick, 1987, Brown, Collins & Duguid, 1989). This situativity theory suggests a reformulation of learning so that practice is not independent of learning and meaning is not conceived as separate from the practices and contexts in which it is negotiated (Barab & Duffy, 1998). In particular Lave and her colleagues focus on the situatedness of meaning or content. The perspective is not on the individual but on developing an identity as a member of a community. Becoming a member of a community allows learning to take place. Communities of practice are formed when people engage in a process of collective learning (Lave, 1993). This process involves the components of meaning, or a way of talking about our changing ability to experience our life, and community, the social configurations in which our enterprises are defined (Wenger, 1998).

2.3.2 Focal components

Meaning

Meaning is a focal component of the theory of community of practice. As defined by Wenger practice is a process by which we can experience the world and our engagement with it as meaningful (Wenger, 1998). Health profession students engage in activities that have evolved over history but in the end it is the meanings that the activity creates in that participant that matter, and that establish their identity as a member of the community. Through relating activities that detail their participation and the reification, or representations of their experience information about the coming together of this interprofessional community can be gleaned. Table 1 lists indicators of participation and reification.

Table 1: Processes of Meaning:

Participation	Reification
Action	Creating procedures
Connection	Stories told
Doing	Terms & concepts
Talking	Entries in journal
Thinking	Proposals
Feeling	Texts
Belonging	Titles
Conversations	Tools
Mutuality	Documents

Community

The second primary component is community. The formation of community occurs through the processes of mutual engagement, joint enterprise and shared repertoire. Lave and Wenger's theory (1991) identifies many indicators of these processes as listed in Table 2.

Table 2: Processes of Community- Building

Mutual Engagement	Joint Enterprise	Shared Repertoire
Relations	Negotiated response to their situation	Routines
Subtle cues	Mutual accountability	Language
Being included in what matters	Mutual interpretations	Tools
Responses to issues	Work defined by participant	Ways of doing things
Influence each other	Dilemmas in common	Gestures
Develop shared ways		Symbols
Creates relationships		Historical events

Legitimate Peripheral Participation

Legitimate peripheral participation is a theoretical description of the process of engaging in social practice that is concurrent with learning. In this situation the newcomers become members of a community initially by being involved peripherally in the work, much as an apprentice. These tasks are superficial but contribute to the overall goal of the community. Gradually they move to a more central role and gain full participation. As the newcomers engage with the community they learn the context of the group and how the community fits into the practice domain.

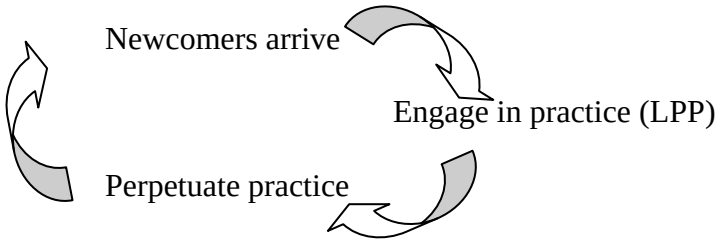

Figure 1: Legitimate peripheral participation

2.3.3 Meeting at the boundaries

UCLID, the learning situation under study brings together students who have already been acculturated in their discipline. They have come together as a nursing community of practice, or a medical community of practice, among others. Now they bring these communities to a new learning situation. One in which they are both experts, in their disciplines, and novices in this interdisciplinary grouping. Who are the experts from which they peripherally learn? Is there

anything unique about the way this community of professionals develops? Do they form a united interdisciplinary community of practice or remain separate?

In fact the coming together in a community of practice would appear to be of high importance. Nearly all literature on interdisciplinary education in the health professions puts forward the primary goal of these encounters as an ability to collaborate effectively in practice to the benefit of health care. A community would imply effective collaboration. But where much previous literature discusses the need to teach teamwork skills, as would be congruent with the theory of cognitive learning, it is in the act of coming together and forming a social practice that the ability to collaborate effectively develops over time

2.3.4 Implications and Operational Definitions

What is the relationship between their disciplinary community of practice and the interdisciplinary one? Previous research using communities of practice as a conceptual basis for the study has focused on learners from one discipline. The setting for this study brings together students of many health care disciplines. Does a community of practice form in a collective learning environment with students from different health professions? Using as a framework Lave & Wenger's work on community of practice, focal components of meaning and community with their identifying characteristics allow dimensions in the process of belonging, from legitimate peripheral participation to expert to be identified and explored through the participant's experience.

Tables 1 and 2 illustrate the focal components of Lave and Wenger's theory of communities of practice. The focus of the theory is on learning as social participation. Negotiation of meaning and community are two primary components of the theory. Our ability

to experience the world and our engagement in it as meaningful occurs through the processes of participation and reification. I have used the following operational definitions in the study.

Table 3: Operational definitions:

• Interprofessionality: The development of a cohesive practice between professionals from different disciplines. It concerns the processes and determinants that influence interprofessional education initiatives and collaboration. In the health domain it is a response to the reality of fragmented health care practices (D'Amour & Oandasan, 2005).
• Interdisciplinarity: A concept describing the interaction among two or more different disciplines. This interaction may range from simple communication of ideas, to the mutual integration of organizing concepts, methodology, terminology, data and organization of research and education (OECD, 1972; Lattuca, 2001).
• Health professions education: This study focuses on the study of the education, basic and advanced of the following health professions-medicine, nursing, social work, public health, pharmacy, dental, audiology, and psychology and education.
• Newcomer: A member of the community who is new to the situated practice.
• Experienced: A member of the community who has gained competence, experience and becomes a perpetuator of the community
• Community of Practice: A collection of individuals sharing mutually-defined practices, beliefs and understandings over a time frame in pursuit of a shared enterprise (Wenger, 1998).
• Wenger's definitions of components of community of practice:

• Effective: It creates an interprofessional environment among the participants.Tthe individual develops an identity that includes not only being a member of their profession, but seeing themselves as an able member of an interprofessional community in their practice environments
• Meaning: Our changing ability- individually and collectively, to experience our life and the world as meaningful, or significant.
• Community: Social configurations in which our enterprises are defined as worth pursuing and our participation is recognizable as competence.
• Participation: A process of taking part, and the relations with others that reflects this process.
• Reification: Giving form to our experience by producing objects that congeal this experience into “thingness.” In doing so we create points of focus around which the negotiation of meaning becomes organized.
• Mutual engagement: People are engaged in actions, whose meanings they negotiate with one another.
• Shared repertoire: The enterprise creates resources for negotiating meaning.
• Joint enterprise: Not just a stated goal, but that which creates among participants relations of mutual accountability.
• Legitimate periphral participation: The process by which newcomers become included in a community of practice. It is an analytical view point on learning.

3.0 STUDY SETTINGS

Data for the study came from two sources. The primary site was UCLID. Eleven interviews were conducted there. Additionally though, journal entrees from my pilot study were utilized.

3.1 UCLID

The primary site for this study is an interdisciplinary leadership training program in neurodevelopmental and related learning disabilities affiliated with a large university and academic health center. The center is one of 35 Leadership Education in Neurodevelopmental and Related Disabilities (LEND) programs occurring in 28 states. It was first funded in 1995, then refunded in 2000 and 2005. The program, commonly known as UCLID, stands for University Community Leaders and Individuals with Disabilities. It is a recognized center at the university. The goal of the program is to develop professionals who can become leaders in the field of disabilities within their disciplines by improving interprofessional communication and collaboration.

Participants are advanced masters, doctoral, and post-doctoral students. The educational and training opportunities are divided into long term, intermediate and short term experiences. The UCLID Fellowship is 10 months in length requiring 20 hours a week, or a total of 600 hours

per year. Another long term training opportunity is the UCLID Traineeship. It is also a 10 month experience, but 300 hours per year. The intermediate experience is the UCLID practicum traineeship of 150 hours, and finally, a short term traineeship that requires participation in either a UCLID course or a 40 hour practicum is offered. UCLID Fellows receive tuition remission and a monthly stipend. Some support is available for the other fellowship categories.

Twenty Long-term Fellows have been identified since 2001. Six of these are participants in the 2005-2006 year. The current group represents the disciplines of medicine, public health, audiology and social work. Long-term intensive fellows since 2001 have also included students from the disciplines of education, nursing,, psychology and dietetics. Long term trainees (300 hours) represent speech/ language students primarily, but also social work and psychology. The intermediate experience has had 37 students since 2001. This group includes a student from rehabilitation and physical therapy as well as the other stated disciplines.

Core faculty in the program represent 12 different disciplines from seven schools at the university. The past project director, who was a physician with a doctorate in psychology left the university in 2007 and was replaced as project director by a clinical psychologist. The project co-director is from the school of social work. Other stakeholders include a 21 member community advisory board, eight member oversight committee, and five research associates.

The UCLID Traineeship courses center around a seminar entitled, “Interdisciplinary Leadership Seminar in Developmental Disabilities.” The course is listed with the University as an offering from the School of Education. It meets in a traditional 15 week format with presenters representing the core faculty and guest speakers. Other courses listed as UCLID courses are in Disability Medicine, Introduction to Developmental Disabilities through the

School of Social Work. A clinical course for children with Developmental Disabilities is cross listed in Nursing and Health Rehabilitation Science.

In addition to the courses students are involved in clinical, community and research practicums. Fellows work closely with faculty mentors on research projects, community-based projects and are part of a clinical team focusing on neurodevelopmental disabilities. Clinical experiences take place in clinics in the acute care setting of a large pediatric hospital that is part of the academic health center associated with the university.

UCLID is an excellent site for study. It represents students, faculty, administrators and other stakeholders from many professions. The wide range of professions was a strength to the study, allowing differing professional viewpoints to be expressed. Finally it has been a program demonstrating sustainability having been in existence since 1995.

Additionally, the participants have a varied amount of experience in interprofessional educational situations. Most participants come to the program having worked beside members of other disciplines in clinical settings, either as students in their pre-certification training, or in work encounters. These experiences can be characterized as multidisciplinary- side-by-side, without integration. In the fellowship they are together in an integrated concentrated experience. This is a new experience for them. The process of becoming a member of the community is viewed from a newcomer's perspective in this study and is able to be viewed from the experienced participant also.

At the point of time of interviewing participants for this study, UCLID was in a transition of leadership. The founding director, a physician took a position at another university. A new program director had been at the helm a few months. This background situation is an element in

the understanding of participant responses, in particular, the experienced members of UCLID who had worked with the founding director.

UCLID's founding director had a driving passion to improve the life of those with developmental disabilities. Under her leadership the UCLID training program developed the culture of collegiality and informality that was exhibited in the study participants' responses. Some experienced members of UCLID described a sense of loss in her absence from the program. In January of 2006 I interviewed two medical fellows and the impact of this departure was evident. The interviews were conducted in the director's old office. Many moving boxes surrounded the table where we sat, marked with their new destination. One of these physicians was planning on moving to the same university so he could continue to work with her.

Experienced members expressed concern over the changes that this new leadership may put into place over the next year. While any transition of leadership creates anxiety, I sensed experienced participants felt that UCLID may change to become a more traditional culture.

This brings up the issue of sustainability in a program when there is a change of leadership. Sustainability is a characteristic of a process that can be maintained at a certain level indefinitely. If a leadership change changes the culture of the organization and the communication style of its members, how do you ensure that those desired traits of collegiality and informality are perpetuated?

3.2 BRIDGING THE GAPS

In the summer of 2005 I conducted a pilot study of the students participating in a summer program known as Bridging the Gaps (BTG). The students responded to questions about their

interprofessional experiences in a journal. This data will be utilized in the dissertation study also. BTG began in Philadelphia in 1991 to link health care students with underserved communities, providing service to those communities and increasing the students understanding of the needs of the underserved. Currently, BTG exists in Philadelphia in the five academic health centers there, at the University of Pittsburgh and more recently at the Lake Erie College of Osteopathic Medicine. Students participate for 10 weeks in the summer clinical experience and attend eight seminars in the winter and spring. During the summer they form teams that work at different community locations.

Twenty one students from medicine, nursing, public health, social work and pharmacy responded in an online journal to questions relating to the interdisciplinary educational experience. The questions related to elements hindering or facilitating collaboration and any attitude or belief changes that the respondents believe occurred during this learning experience.

4.0 RESEARCH METHODOLOGY

In order to better understand participants' attitudes and experiences towards interprofessional education a qualitative study, using the techniques of Grounded Theory. In this chapter I will detail the grounded theory design of the research, review my data collection process, data analysis and limitations of the study.

4.1 CHOOSING GROUNDED THEORY FOR THIS STUDY

Grounded theory, an inductive, naturalistic method for generating theory to describe and explain social phenomena, provides a way to study the concepts of interprofessionalism and community of practice that allows theory to emerge from the data during the process of data collection and analysis.

Grounded theory is a good option for my research for many reasons. The methodology is useful when there is a need to develop a theory to explain a social process, interaction or reaction to situations (Charmaz, 2006). Having been designed by Glaser and Strauss (1967) for that purpose, the techniques were developed to encourage the researcher to attend to the processes and actions as well as the words and to identify the conditions under which these events occur.
I was interested in studying the interprofessional learning environment and identify if there were conditions that occurred that allowed the group to come together as a community.

Another reason I chose this method is the frequency of its utilization in both the education and nursing fields. As a novice researcher and a doctoral student looking to begin to write for publication I felt this would make it more acceptable in my major domains of practice. This was readily apparent when I began to search the literature for qualitative studies. As I also began to read about the methodology itself I was drawn to it for this study because it is instructive and written in a way that inspires confidence in the ability to successfully carry it out.

This I learned in further reading, appeals to my "scientific roots" (Piantanida, Tananis & Grubs, 2004). My undergraduate and graduate level research training in traditional quantitative study was at play in drawing me to a set of procedures I could follow and be successful in developing my thinking. I realized my inexperience in thinking in an analytic fashion and felt this process would be a guide to develop me in that way.

4.2 HISTORICAL CONTEXT OF GROUNDED THEORY

Grounded theory was developed in 1967 by Barney Glaser and Anselm Strauss, related to their work with terminally ill patients at the University of California San Francisco Medical Center. Glaser and Strauss tried to understand social phenomena through a systematic analysis of the data, followed by the generation of theory related to, or grounded in the data (Glaser and Strauss, 1967). The theoretical basis for grounded theory is symbolic interactionism. This theory emphasizes the subjective meaning of human behavior and the social process (Blumer, 1969). Through this social process people learn meanings and symbols. More currently those involved in the area are familiar with the break in the team of Glaser and Strauss and the publication of *Basics of Qualitative Research* (1998) by Anselm Strauss and Juliet Corbin in

1998. Many researchers, including myself are drawn to this book as a guide for the methodology. This study followed the Corbin and Strauss methodology utilizing the procedures and techniques identified in the book.

4.3 USE OF NVIVO7

The second course in qualitative research was one in qualitative data analysis through the use of a software program, then called NUD-IST, now evolved to NVIVO7. This knowledge gave me a tool to organize the transcripts and work with the data. These systems also provide a way to query the data and graphically model the concepts. Memos written by me during the process could be stored and compared to the transcripts. It is helpful in the iterative nature of the work capturing each stage on analysis and allowing for comparisons. The family tree format helps in conceptualizations of relationships and processes.

During my inquiry process I struggled with technological issues of computer problems and developing a competency with the program. I still found myself drawn to reading the paper versions of the transcripts and writing in the margins. Time doing the analysis was valuable and I avoided taking the time to teach myself the NVIVO7 version of querying.

In future studies I would continue to use NVIVO7, and more thoroughly than in this study. There are so many anxieties of a doctoral student and using NVIVO7 was adding another. In retrospect I believe it is a very useful tool that would aid in a deeper analysis. It is certainly a very useful way to organize and store the data, even for future studies.

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4.4 DATA COLLECTION PROCESS

The primary data collection process involved semi-structured interviews of the participants. An electronic request to participate in the study was generated in December of 2006 to all participants, students and faculty in UCLID for whom an email address was available. Fifteen current or former UCLID fellows or faculty responded indicating they would be willing to participate. Eleven initial interviews were conducted, primarily in January and February of 2007. The remaining people contacted were unavailable. They no longer live in the area. These interviews varied in length from 30 minutes to one hour. All were conducted on the university campus with the exception of one at a coffee shop. These interviews were audio taped with the participant's permission. The tapes were then transcribed, some by myself, others by a paid transcriber. The transcripts, completed in a Word document were printed in hard copy and imported into NVIVO7 for analysis.

The data was obtained by conducting semi-structured interviews using a process detailed in *Qualitative Interviewing* by Rubin and Rubin (2005). Follow-up questions were based on the constant evaluation of initial responses to allow for more depth and understanding of the concept. Framing questions were posed initially using the initial interview protocol from the dissertation proposal. These questions were:

Background

What is your latest degree?

What attracted you to your field of study?

What work experiences have you had in your field?

What was it about this program that attracted you?

How did you find out about the program?

What did you hope to accomplish by involvement in the program?

Mutual Engagement

Initially, did you feel a part of the group, or an outsider?

What activities allowed you to feel like you were a part of the group?

Were there activities the group did socially, beyond the program hours?

Did you email or talk on the phone with another member of the group?

Did you feel you were a valued member of the group?

How often did another member ask you for advice?

Did you feel respected? If so how?

Did you feel connected to other members of the group? Can you explain?

Joint Enterprise

In a clinical situation, how was it decided who did what work to complete the task?

Think of a situation were there was disagreement. How was it resolved?

Shared Repertoire

What medical terms used in the group were unfamiliar to you?

If two terms were used in a similar situation how was it decided which to use- or was a new term devised?

When the group was seated did you notice any pattern in the seating arrangements?

Were any forms designed, or papers written? What discussions took place about different profession's views?

Any policies? From which discipline?

A concluding question asked if there were any other experiences or stories they wanted to share about their interprofessional experience.

Further questions were asked following the lead of the participant to allow for responsive exploration of subjects participants identified as significant. Participants were also encouraged to tell any stories they remembered as significant to their experience. All members had ample opportunity to express their thoughts. The interview time ranged from 30 minutes to one hour. . The interviews were audiotaped and then were transcribed verbatim into Microsoft Word documents. These were then put into NVIVO7 for storage and analysis. Data collection and data analysis were done concurrently. This allowed me to adjust the questions as necessary to explore elements of the evolving theory.

Data collection during the pilot study was completed in the summer of 2005. After completing a course in qualitative research I had an opportunity to conduct a pilot study on the subject of interprofessional education. I was not at the point I could conduct the dissertation study but had the opportunity to trial some of my questions and learn the NUDIST computer system while analyzing the data. I approached the director of Bridging the Gaps about the study and after a few conversations had their support. Twenty one students from medicine, nursing, public health, social work and pharmacy responded in an online journal to questions relating to the interdisciplinary educational experience. The questions related to elements hindering or facilitating collaboration and any attitude or belief changes that the respondents believe occurred during this learning experience.

When the interviews were transcribed into Word documents I printed hard copies and imported the documents into NVIVO7. I began to use NVIVO7 to read the documents and do a line-by line coding.

A second set of questions evolved based on concepts that emerged during the aanalysis. Those questions are:

1) Can you describe a time when you felt respected? What happened? What contributed to that experience?

2) When you felt respected, in what way did that impact your actions?

3) What do you think are the most important ways to convey respect?

4) How would you define respect?

5) As you look back do any events stand out related to feeling respected?

6) Is there anything else you would like to tell me about feeling respected?

The data I was able to collect then include that gathered from interviews of participants in a year long interprofessional fellowship, and journal entrees from participants in the program Bridging the Gaps, a 10 week summer program. I learned how hard it is to come up with questions that elicit the information you desire, and how enjoyable it is to have a conversation with participants on the subject. I learned that it takes a long time to transcribe a tape and that it is hard to find someone willing to do that, even for a price. After the eleven transcripts were thoroughly evaluated, I felt that I had sufficient data for the study.

4.5 DATA ANALYSIS

Data analysis for me, was a back and forth process of looking at the documents on NVIVO7 and pulling out the paper, reading and writing in the margins. I would read a statement by a participant and get so excited by what I thought that thought exemplified. I was aware of

the conflict of seeing it as a dimension of a Wenger concept. At first I thought this was a huge issue. I heard an editor lambasting someone who submitted an article that did not follow each step of their claimed genre. I was sure my work was not publishable.

My first step to acceptance was that my committee did accept this process during the Overview meeting. I began to look for articles by others who may have the same issue and I began to realize that objectivity is impossible in data analysis. That is in fact part of what drew me to interpretive/qualitative research. I am interpreting this data based on who I am, which is based on all of the experiences of my past. Secondly, literature can be found that challenges the necessity of the following of each technique in each study as a necessity of calling your methodology grounded theory. Piantanida, Tananis and Grubs (2004) discuss the use of grounded theory by those generating research to apply to practice settings, "Pronouncements of procedural orthodoxy are particularly perplexing given the frequency and consistency with which Glaser and Strauss and Corbin reiterate the importance of methodological flexibility." Kincheloe (2005) utilizes the term bricolage to counter what he terms "monological knowledge" which is produced in the quest for order and certainty. Finally, Olshansky (1996) espouses the possibility of another view of how to conduct subsequent research in a line of grounded theory studies, challenging the view that further research should be deductive studies.

That being said I did complete the analysis with Strauss and Corbin in hand, attempting to follow the techniques and allow them too deepen my thinking about the subject. I began with open coding, a process Strauss and Corbin (1998) defined as the "analytic process through which concepts are identified and their properties and dimensions discovered in the data." This includes conceptualization, where the data is broken down into discrete incidents and given a representative name. I began with the broad concepts of meaning and community and those

became the bottom of the tree. While a code could, if appropriate be placed in that linkage, I developed each code and mined it for dimensions and properties.

I went back to the documents and reread them looking for codes which stood out as unique, apart from the Wenger theory. The concept of respect is a good example of this thinking. The locations where it occurred were identified and through comparative analysis I looked for common characteristics. At the same time I created memos on the concept. The memo was kept open beside the transcript and my associated thoughts recorded. For example, I thought about the relationship of the dialogue that occurred and how that the truly collaborative back and forth banter on a subject was an outcome of the respectful nature of the environment. I also listened to the participant's descriptions of when they first felt respected and how they defined and described it.

I began to develop a model of the classification structure. Working in conjunction with my chair, Dr. Porter, items in the model were labeled as processes, themes and subthemes. For clarity I consistently spoke of those concepts with those labels. This modeling exemplified the way I related categories to subcategories, what is known as axial coding by Strauss and Corbin.

Selective coding is the process of integrating and refining the theory. Building the model clearly demonstrated the linkages and associations for me. Effective interprofessional community of practice was the central category. This was related to the informing framework. I think the data gave amble evidence that this was a valid category. I attempted to use the conditional/consequential matrix as a tool but did not find it useful to my analysis.

4.6 METHODOLOGICAL ISSUES OF THE STUDY

I chose a grounded theory approach for three reasons. It is an approach useful to study a complex sociocultural phenomenon, having been designed for that purpose. It is frequently used in both the education and nursing fields, making it acceptable in my major domains of practice. Finally, it provided me with more structure and helpful guidelines as a novice researcher.

Using Wenger's theory was an essential part of the study in identifying if indicators of a community of practice are present. I took the major concepts as starting points in the data analysis. The basic techniques and procedures of grounded theory allow me to thoroughly analyze the participant's responses in a twofold manner. I could look for a relationship between their responses and the indicators of a community of practice. I could also listen to their responses and code for other categories. A primary guideline of grounded theory is remaining open to the emerging data. While maintaining this objectivity is important, Strauss and Corbin (1998) state that examples may be used to stimulate our thinking.

So with the approval of my dissertation committee members I moved forward in this way. I would examine the data to observe for statements indicating the presence of a community of practice, while carefully coding for other thoughts indicating other categories. The two themes of meaning making and community –building are based on the Wenger theory. I compared the statements that elaborated my initial concepts with the theory of community of practice. This set the groundwork for the claim of the establishment of an interprofessional community of practice. At the same time, the data was analyzed for codes that arise from the data, independent of the applied theory. This set the groundwork for a theory of interprofessional community of practice that originates from Wenger's theory- but further develops it, adding depth and breadth to the original theory.

Many challenges did occur during the course of the study**.** Staying open to seeing new codes emerge while analyzing the relationship of statements to Wenger's theory was constantly on my mind. I went through the data multiple times. First, by matching statements with theory, then by looking for differences. Rather than ignoring the differences, they were focused on and developed. I did line-by-line coding looking for new categories emerging from the data.

In addition to maintaining openness, another challenge was being aware of my own assumptions and their effect on how I interact with the data. I found the memoing process to be extremely useful in sorting out my thoughts and beliefs and using them to further my thinking. It became a record of the research and the development of concepts.

Finally I did have concerns about the correctness of this design. Did this design negate the value of the work? Would I be unable to publish because it wasn't a classic grounded theory design? A review of the literature on this subject yielded many calls for "methodological flexibility (Piantanida, Garmen & Grubs, 2004)." They contend that practitioners doing research to apply to practice approach grounded theory in a different manner than does a researcher in social science. Furthermore, the theory is not to be constrained by procedural orthodoxy, but expanded by well supported lines of reasoning about the novel concepts and the relationships between them. Glaser, Strauss and Corbin all emphasized the importance of flexibility in the methodology (1967, 1998). Glaser goes on to suggest that the method is continually evolving (1999). Sandelowski (1993) points out that even if a theoretical orientation is denied, it is always implicit in the way the problem is presented.

I am a practitioner interested in generating theories grounded in the perspectives of individuals that will be useful in promoting interprofessional practice. The study contributed to a

more detailed and comprehensive understanding of the phenomenon under study by using this approach.

4.7 LIMITATIONS

In addition to the issues discussed in the previous section other limitations include the novice status of this researcher. Although this was my first qualitative study I took courses in qualitative research and computer-assisted qualitative data analysis to prepare. I also read texts on grounded theory and gained further insight through a monthly qualitative interest group. This group was initiated by Dr. Olshansky in the health sciences school to promote qualitative research there. Maureen Porter helped me develop myself as a qualitative researcher additionally.

Another limitation is that I was limited to interview and journal data from these two small sites. The study may have been stronger if I had also obtained quantitative data in the form of a survey. The sample size was small by quantitative standards but was large enough to achieve thematic saturation.

5.0 FINDINGS

The purpose of this study is to compare and analyze participants' descriptions of their experiences in the interprofessional program, University, Community, Leaders, and Individuals with Disabilities (UCLID), in order to understand the phenomenon of becoming a community of practice in an interprofessional environment. I aim to identify the extent to which a community of practice has formed in this setting. This understanding will lead me to be able to develop a model, not just of an extant, but an effective interprofessional community of practice and to suggest essential hallmarks, criteria and strategies for achieving this in other settings.

In this chapter I will review the evidence of the study that will support these conclusions. This chapter has the significant quotations from the data that back the structure and process identified for the UCLID experience. The chapter is arranged according to the structure that I identified based on the interviews. There are three major chapter headings; community-building, meaning making, and feeling respected.

The evidence is based on data in the form of eleven interviews of participants in the fellowship UCLID and journal entrees from students in a summer internship, Bridging the Gaps. Both programs bring together students in health profession programs. UCLID, a fellowship with the goal of developing leadership skills in those interested in the care of children with developmental disabilities covers the course of an academic year. Seminars are held in the fall semester and continue in the spring along with a weekly clinical experience at a pediatric clinic.

UCLID members interviewed are graduate students in social work, medicine, education, and dietetics. Eleven semi-structured interviews were conducted by me at the University in January and February of their experience. Bridging the Gaps is a ten week summer program placing health profession students in disadvantaged neighborhoods to increase understanding of community needs. . Eighteen journal entrees from nine participants in Bridging the Gaps were analyzed also as part of a pilot study completed before my dissertation study. I also wrote and analyzed memos of my observations. This provided additional data. A secondary set of questions was sent out to the eleven UCLID participants relating to the process of feeling respected.

The initial framework for analysis is based on the social learning theory of communities of practice by Etienne Wenger (1998). The two primary components of this theory are community and meaning. Elements of the component community are mutual engagement, joint enterprise and shared repertoire. Elements of meaning are participation and reification (see Figure 2).

Community	**Meaning**
Mutual engagement	Participation
Joint enterprise	Reification
Shared repertoire	

Figure 2: Original Wenger Framework

The framework that will be used in this chapter to display the evidence is based on the three processes; community-building, meaning-making and feeling respected identified in this study. Themes and subthemes that emerged from the data are then discussed. This is a schematic of my initial framework. I then took the evidence into consideration and expanded it to describe the experiences of the study participants.

Table 4: Processes and themes of analysis

Process: **Community-building**	**Process:** **Meaning-making**	**Process:** **Feeling respected**
Mutual engagement	Participation	Assumption of good faith
Joint Enterprise	Reification	Willing to engage in dialogue
Shared repertoire		Acceptance of differences
		Valuing the relationship

These concepts capture the problems and issues that are the most important to the participants of this dissertation study. I delve into each process to examine the themes based on the evidence. This analysis of the process of being in an interprofessional community will lead to the development of a model of an effective interprofessional community of practice that will be summarized in the concluding chapter.

5.1 THE PROCESS OF COMMUNITY-BUILDING

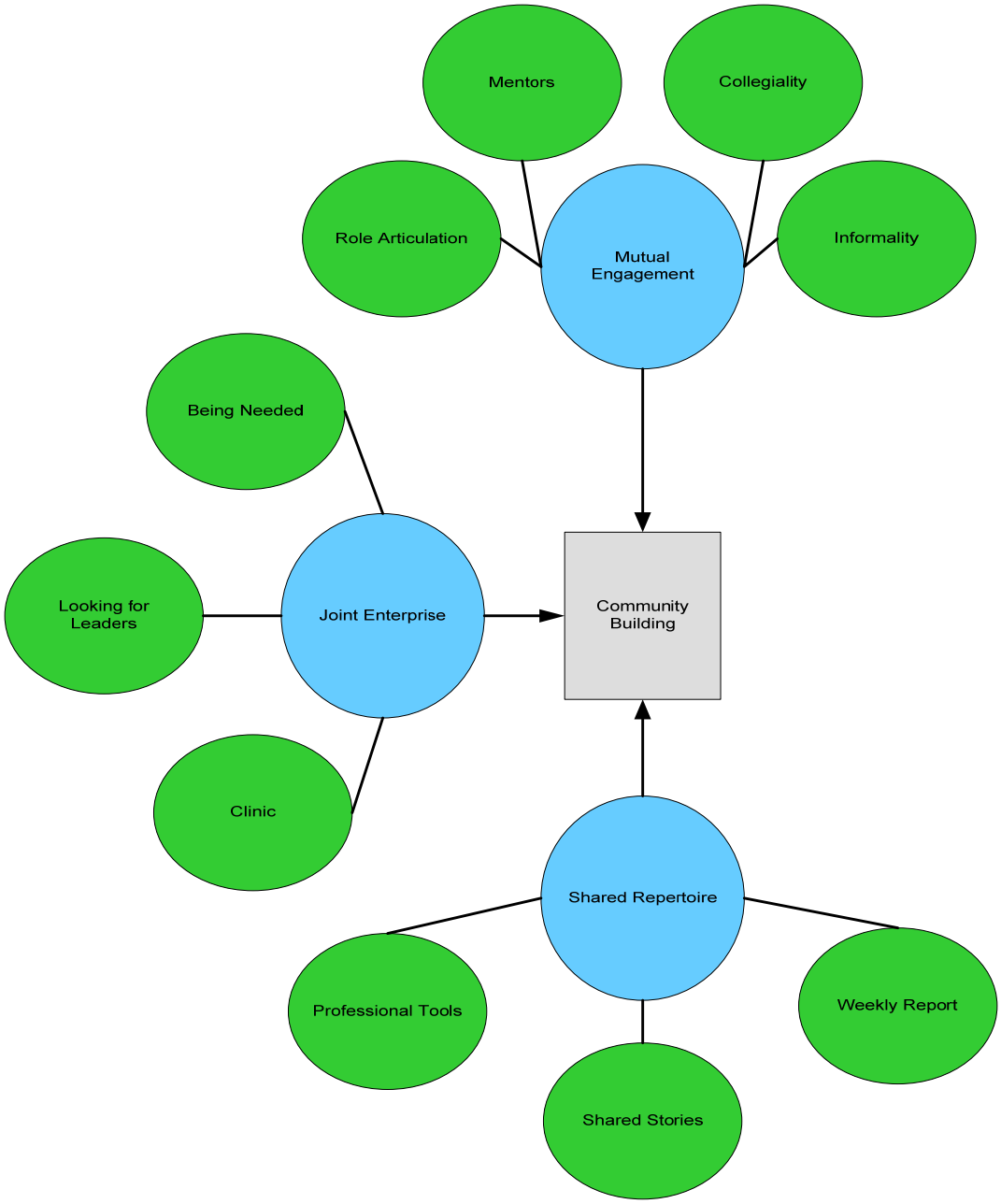

Figure 3: The process of community-building

I set up empty sets to classify the participants' experiences when looking for possible relationships that lead to the development of community. During the open coding process the

themes noted in the interviews fit well into the three elements of community noted by Wenger (1998); mutual engagement, joint enterprise, and shared repertoire. This framework was useful to me as it did compare with the participants' interprofessional experiences. In Table 4 participants' depictions are placed in this initial classification structure.

Table 5: Community-building

Mutual Engagement	Joint Enterprise	Shared Repertoire
• Clearly articulated roles **N** • Collegiality **NE** • Informality **N** • Importance of mentors **N** • Invitation by experienced member to move from the periphery to the center **N**	• Being needed **N** • Developing leaders **E** • Learning others' tools **NE** • Teaching others knowledge you have that is unique **NE** • Working out of your expertise **N**	• Weekly report **NE** • Professional tools **NE** • Knowledge of each other's tools **NE** • Shared stories **NE** • Program evaluations **NE** • Program standards, goals **E**
• **Outcomes**	• **Outcomes**	• **Outcomes**
• Informal address	• Mutual openness and sharing	• Collective set of tools

KEY: N= important primarily to newcomer, E= important primarily to expert, Major aspect of subtheme-underlined.

5.1.1 MUTUAL ENGAGEMENT

Mutual engagement refers to the actions and interactions that move the work forward and lead to the formation of a sense of community. The term *mutual engagement* defines a particular

kind of action however. According to Wenger (1998), a community of practice requires individuals to interact purposefully, exchanging ideas and forming relationships. Practice does not exist in the abstract. It exists because people are engaged in actions whose meanings they negotiate with one another. Mutual engagement infers both a sense of active participation as well as reciprocal influence. Participants of UCLID are interacting with the collective vision of improving the quality of life for children with developmental disabilities and their families. Their actions and interactions are negotiated, newcomer and experienced, with the collective goal of developing as leaders in this area.

How do the UCLID fellows and faculty act and interact during the program in ways that impact their development into a community of practice? In this section I will discuss three of the most important themes that emerged in the interviews related to mutual engagement. These themes add depth to our understanding. These are; clearly articulated professional roles, collegiality and informality, and the importance of mentors from your field.

5.1.1.1 Articulating One's Professional Role

As newcomers to UCLID begin the fellowship they bring with them previous professional experiences. They come as members of their professional community of practice. Many stated that the ability to clearly articulate their professional role in this interprofessional group is important. For some newcomers successfully initial establishing their identity in the group set the stage for the interactions to come.

This issue was not the same for everyone and appeared to be based on their profession. An example of someone for whom it was important is Tom, a social work student. Clearly articulating the type of social worker he was would identify his lack of clinical training. He felt unprepared to interact with patients in the clinical setting. Articulating his professional role as

policy-based instead of clinically-based would explain his hesitation in the clinical setting. The groups' knowledge of this was important to him to explain his level of participation during clinical interventions.

> *It was one of the real difficulties that I felt, just explaining to people what I did. Not that there is anything wrong with direct care social work but I didn't want anyone to think that's what I was, because I wasn't*. (Tom, a social work student)

Tom had recently completed an undergraduate degree in psychology. His initial interest was in dentistry. As he applied to graduate programs his interests changed and he was admitted to the school of social work. An interest in policy change and community development, initially around oral health issues, rather than clinical or counseling positions, lead him to specialize in the department called COSA, Community Organizing and Social Administration. In the interview Tom spent a lot of time talking about his initial encounters with experienced UCLID members, first at the Open House and then during clinical sessions. It was very important for him as a newcomer, to be clear with the others about his professional role. Since he was new to the school of social work also, he was trying to first understand it himself, then to be able to articulate it clearly to others. It was important to him that they understand he was not a clinical social worker.

This struggle reflects the development of his professional identity as a type of social worker whose role is not well understood by health professionals. He has undergone a lot of searching for his career. As his undergraduate degree changed he switched to thinking about advocating for oral health. Now he is developing his identity in the COSA program. On top of that he now is a Fellow in UCLID. He wants his new professional identity to become clear as he engages with others from other professions. These initial encounters are a challenge to

newcomers as they have an emergent sense of their professional self and must clearly state this often complex role to the group

Another example related to articulating one's role is the initial encounters of a graduate student in special education. She identified her role, similarly to social work student as, "not in the health professions." That seemed to signify to her a role in the group as one on the periphery, and thus set the expectation that she would not participate in the clinical setting, to the same degree as a student in the health professions. She stated, as an international student there were many personal issues of language, gender and technology that took precedence in her mind during her experience. She identified that there was a faculty person from the school of education who advocated for that profession's representation in UCLID. Although not her mentor, the faculty person would support education personally, but also provide the role articulation of education if it was called for in the group. Leadership of UCLID did address this issue, including having students speak about their discipline. *"We all did a five minute sketch of our discipline and how it helps people with disabilities" (Tim, social work student).* These sketches were seen as helpful to the student learning their role, and to students from otherprofessions, as they learn about other members of health professions. Another way understanding of roles was addressed was the bringing of faculty experts to the seminars. *"We had many speakers, from genetics and public health. As they discussed their role in respect to developmental disabilities we gained a better understanding of the whole health care team" (Kay, Physical therapy faculty). "Hearing a speaker from my discipline helped me to know. So when he actually explained what he did, I think it kind of made a little more sense, what I am doing" (Julie, education student*)

In clear contrast to these two initially subordinate newcomers, medical students, whether newcomers or experienced participants, did not cause them the same concern. None of the medical students expressed any concern about identifying their professional role. The medical role has been historically prominent in the culture and dominant from a power perspective. Possibly for this reason this does not appear to be an issue among medical students in the group. The physicians already understood their role in the group- that of clinical expert and leader by virtue of their knowledge and historical power. The setting for UCLID is in a hospital clinic, home base so to speak, for the general academic pediatric fellows. Their self-introductions had been given with ease and confidence, according to their accounts.

I interviewed the new director of the program and principal investigator for the grant. He was a newcomer to this UCLID group and new to the university. He is a psychologist by profession and replaced the founding director who wis a behavioral developmental pediatrician with a PhD in psychology. He characterized himself to me as a "*duck out of water*" in that he is the only clinical psychologist in the group. He also identifies his role as encouraging the group to change from a focus on leadership development to a more academic focus. His engagement with the other newcomers is very limited though. He acts in an administrative role and is not at the clinic sessions, or the seminars, on a regular basis so his interaction with other participants is limited.

The newcomers' articulation of their professional role then, depended on their profession. It is important to those not in the health professions. For those newcomers who are physicians, role explanation is not an issue. A physician's role has historically been clear, making explanation unnecessary. The experienced members interviewed are faculty and physicians doing a fellowship rotation in developmental disabilities.

Faculty members of UCLID on the other hand have a clear and privileged position. Faculty members represent physical therapy, occupational therapy, education, speech, nursing, audiology and medicine. Their professional role is clarified early in the seminars when they speak and introduce themselves.

" Yeah, we bring in a lot of speakers. They are mostly physicians who speak about aspects of care"(Tom, social work student). Physicians whose identity is as faculty have their role explained in the seminar setting. So these experienced UCLID members would not have an issue with role articulation. "*The faculty stood up and introduced themselves in the seminar*" (Pam, Dietician). The role articulation of the experienced members is formalized as part of the ULCID process. The experienced members did articulate their task as that of encouraging traits in the newcomers that they see as leading to a successful participant. *" I think when the teams have not worked well the leaders have not done their job" (Jay, Medical fellow).*

For Wenger (1998) there is a profound connection between identity and practice. The participants are in negotiation of ways of being a person in the context of their professional school- i.e. social work, nursing. At the same time they come to this new community trying to represent their profession and also become a member of this new, interprofessional community.

Role articulation then is a critical event for some members, but not for others. It is important for the social work student whose profession has been historically marginalized within traditional health care hierarchies. The profession of educator is not a part of the traditional health care hierarchies. Someone from education would not be expected to have clinical knowledge so establishing their space in the team is different. For the medical students, that role is already clear to all because of its status in our culture.

The newcomers' struggle to be seen as a legitimate member of the UCLID community is overcome by a culture of collegiality and informality at UCLID. This next section looks at these subthemes. How do you overcome those historical designations of status made clear in role designation?

5.1.1.2 Collegiality and Informality

Another subtheme that emerged during the coding process that I relate to the theme of mutual engagement is the informality and collegiality of the group. This was seen by participants as surprising, uncommon in their experiences in their professional schools. Starting from the experience of the UCLID Open House, and their first encounters during seminars, the attitude of collegiality and informality was empowering to the newcomers. It encouraged open communication and set the tone of UCLID, encouraging mutual engagement.

The new members of the group were introduced to this aspect of UCLID during the Open House. The open house is held in the spring and is attended by the newcomers and the faculty and directors of the program. The faculty, in conversation with the newcomers, asked to be called by their first names and asked new participants for their opinions For the newcomers the informal tone made it clear that this would be a different experience than many had experienced in their traditional professional programs. *"The first meeting was the faculty interview and we started talking about UCLID. They asked me what views do I have and what do I think about it" (Ann, Education student).* The student's usual demeanor with teachers is stated as quiet, but it was clear this was not to be the case at UCLID. The medical student who was beginning her UCLID experience was also surprised by the informal and collegial atmosphere of this first encounter. She spoke of the expectations in her professional training.

When we would talk I felt they (the faculty) really wanted to hear what I thought about the matter. We all used first names. It was wonderful. It made it hard to go back to medical school where it was very hierarchical. There it is ' yes sir' and 'no sir' (Ann, Medical student).

Participants were surprised by this aspect of UCLID culture. It set the relationship on equal ground. By asking the students to call them by their first names the faculty were establishing a professional to professional relationship that allows true discussion to occur.

How did this culture of collegiality and informality develop at UCLID? Some participants stated UCLID acquired this culture from the founding director and from others during their initial involvement in the program. *"Dr. Feldman was a wonderful leader. Her passion for these patients was infectious and her respect for others set the tone for UCLID from the beginning"(Bob, Medical fellow).* Collegiality and informality are part of the culture at UCLID. It is in many cases not the culture in many professional schools and practice environments. One of the experienced members of the group, a physician from another country doing a fellowship in developmental disabilities described his philosophy of interprofessional work, one that he attributes to his mother, a surgeon, who had also been a nurse. *"Here you have different professionals from different areas who bring different things to the team, different skills, as all working together you can do better"(Medical fellow).* He contrasted this view of working with other professions to what he saw exhibited by many in the United States. *"Sort of like the Army, where you have different ranks and different levels, different divisions and battalions" (Medical fellow).* The experienced members of UCLID continued this tenor to set the expectation that all the members are to be fully engaged in the conversations and in the

patient assessments. *"The way I describe it to them is that we are all experts. We are all leaders"(Stephen, Medical fellow).* This culture of collegiality and informality developed at UCLID because of the worldview of the founding director and the similar views held by other experienced members in the group.

This collegial culture developed and leveled the filed allowing relationships to develop, but this culture also meant they were fully participating in conversations and clinical experiences. For some of the newcomers this was unnerving. The UCLID collegial culture also meant they were expected to step up to the plate during clinical assessments, even if the tools they were using were new to them. They often felt they didn't understand enough of the medical conditions or the assessment tools. *"I didn't feel I was ready to do that assessment. I just saw the tool for the first time a few minutes earlier, but there I was handling it myself." (Pam, Dietician).* This student could have stayed on the periphery and observed someone more familiar with the assessment tool completing the assessment. She would have been more comfortable and would have learned a little about this assessment by observing. By doing it at that point though she learned more as the actual participant. But something more important was happening in this experience. The new UCLID participant was being shown she mattered to the group. She was learning in this special type of social practice that Lave and Wenger(1991) call legitimate peripheral participation, the process by which members become part of the community. By learning the skills of the practice they are also becoming a fully participating member of the community. According to Wenger (1998), being involved in what matters is critical to the development of a community of practice.

Collegiality is defined as having authority vested equally among colleagues (wordnet.princeton.edu/perl/webwn). Informality among faculty and students, newcomers and experts

who use first names is an aspect of collegiality. Together these things create an atmosphere that allows the community to come together on equal ground. The two aspects interact to influence mutual engagement. The newcomers felt they were a valued part of the team and that they were legitimate members of the community. The experienced members gained what they were looking for. They gain a new level of interprofessional understanding when the newcomers participate.

Granting this legitimacy is important because first attempts may not be competent. The newcomer needs to feel supported in a way to continue to practice until competence is attained. In UCLID this legitimacy is created by the atmosphere of informality and collegiality. It allows the newcomer to know that his input is valued and that his participation is not only important to the group but will be expected.

The atmosphere of acceptance and encouragement that result in relation to collegiality and informality is critical to the development of colleagues in this interprofessional community of practice. Some participants spoke of learning in their professional schools as often occurring in an atmosphere of fear and authority. *"As a student you are used to being told what you are supposed to do" (Medical fellow).*

Participants have been enculturated in their professional communities during their initial professional programs. They are members of the community of practice that is medicine, physical therapy, or social work. As they come together initially in the interprofessional learning experience that is UCLID, they are at the boundaries, the borders. They are not yet fully a member of the community. Other aspects of the program continue to evolve the interprofessional community. Finally, email was a frequent tool to continue the relationship outside of the formal time. *" Email is our prime way of communicating. I can use it to educate*

others about what my profession has to offer. When I get something good I send it out" (Paul, Social work student).

5.1.1.3 Mentors from their Profession

Part of the experience of UCLID is pairing each participant with a mentor. As I interviewed faculty and we discussed the process of pairing a new participant with a mentor, faculty mentioned that many factors come into play when assigning a mentor. With participants from so many different professions, and the even distribution of mentoring among the faculty, any hard and fast rule about interdisciplinary pairing or pairing within a discipline would be hard to carry out. Both faculty stated that it would be good to pair a student with a mentor from another profession. There expressed reasoning was that this experience would add to the depth of understanding of another profession.

Interestingly though, both medical fellows point out the advantages of pairing mentors and fellows from the same profession.

> *The Speech people all have been great in clinic because [a faculty person from the Speech department] is a clinic mentor who pretty much owns her mentees. It seems to me they have gotten more careful mentorship by their director. The good thing about having a mentor in your discipline is that you will be sure you are getting the stuff you are supposed to get as part of your curriculum (Bob ,Medical Fellow).*

The reasoning for a having a mentor from your profession here is that your professional school is looking for certain outcomes from your UCLID experience. Having a mentor from your profession helps to ensure that those experiences are gained and integrated into your professional curriculum. Another medical fellow points to another reason:

"If you have a psychology fellow who has a mentor within their profession, the mentor helps them bring the psychology tools to the clinic and they are enriched and the team is enriched" (Stephen, Medical Fellow). Two benefits then of pairing a mentor and student from the same profession are the achievement of the goals of that student's professional school and what the student learns about how to present your profession to another. For example when the team is assessing the patient, a speech faculty member paired with a speech student will strongly demonstrate how a speech therapist would assess the patient and the tools a speech therapist has to treat the patient. A student who is a newcomer to UCLID may not be confident enough in the group, or sure enough of her speech assessment and treatment to speak up.

As I will discuss more under the theme of joint enterprise, one of the benefits of this interprofessional experience is learning the tools of other professions. If a newcomer comes without both a strong familiarity with that tool, and the ability to teach its use to others that benefit will not occur. Pairing a mentor and student from the same profession can help the newcomer to represent their profession strongly and teach others the essential part their profession plays in the whole picture of health care.

What allows participants in an interprofessional experience to understand another profession is having that profession represented well by someone. If the psychology fellow is early on in his program and unclear about that professional role and does not have a good understanding of the tools psychology can bring to the assessment and treatment of the patient the whole teams' experience is weakened. Having a mentor who is either a faculty member from that field, or an experienced practitioner allows for the professional growth of the participant and then for the understanding of the team of the role psychology plays in the care of the client. That mentor from your profession brings your profession's unique tools to the joint enterprise of UCLID, the clinic work.

Mutual engagement for the participants of UCLID was characterized by three aspects discussed in this section. The culture of collegiality and informality that was established at the beginning of the program. That atmosphere encouraged full participation in discussions and patient assessments. As the group first came together newcomers in non-clinical professions expressed concern over the identification of their professional role in the group. Finally the engagement of the group benefited by student mentors being from the same profession. This allowed the student to learn more about their profession's role in health care and allowed the community to have clear examples of each professional role.

The engagement of the group initially is characterized by gaining an understanding of each other socially and professionally. Over time, when mutual engagement is sustained Wenger states, their identities become interlocked and articulated with one another (1998). A second source of coherence for the community is joint enterprise, or working in their practice towards a common goal.

5.1.2 JOINT ENTERPRISE

The second theme of community-making is joint enterprise. It is the purposeful, authentic activities that frame the domain, or the practice (Brown, Collins, Duguid, 1989). It moves the process of community-building beyond socialization alone. It is in the pursuit of caring for the child with developmental disabilities that the individuals come together as a community. Attending the open house and the seminars begins the convergence, but it is in the working together in the clinic that community actually forms. This is why it is critical that interprofessional program experiences include working together on joint enterprises, not just sitting in a class together.

The core of the UCLID experience each week is the clinic. During clinic the UCLID participants- fellows and faculty are divided into teams. Each team has a leader. That leadership position rotates each week. The leader for the week does the background research into the patient they will see. The background assessment of the patient is completed by reading information from intake forms and interviewing families either in person, or via the phone. The team leader gives the team a verbal report of this prior to the interviewing of the patient and family during the clinical experience. A final report is assembled after clinic with recommendations suggested for treatment. The team leader must assemble each member's thoughts into a cohesive document.

I reviewed the participants' responses related to clinic work. Perspectives of the newcomer and the experienced member are different and will be discussed here.

5.1.2.1 Being Needed

Newcomers to UCLID come with very different levels of experience in health care settings and within their professions. Some UCLID fellows are medical residents who are beginning a fellowship in developmental disabilities. Others are beginning a social work or education graduate degree and have much less experience in a clinic setting. Despite the different starting points, experienced members try to encourage newcomers' full participation in the UCLID enterprise early on.

> *We are all expected to step up to the plate and contribute to the team work. With the UCLID model it doesn't work if somebody stays behind. Sometimes that might be hard for people who are just starting. We will need everybody on the team- wherever they are in their program- they are a leader (Ann, Medical student).*

Being accountable, or needed, plays a central role in authentic activity or joint enterprise. It is in the relations of accountability that a joint enterprise is negotiated (Wenger, 1998). Practice, certainly health care practice, creates dilemmas. Decisions must constantly be made in health care. Participants in these decisions have different ideas as to the best approach. A health care team has to negotiate to come to a decision. Being accountable to the group allows the participants to become interconnected because they are all authentically engaged in the activity, or enterprise. *"I didn't feel I was ready to do that assessment. I just saw the tool for the first time a few minutes earlier, but there I was handling it myself" (Pam,Dietetics student).*

This "stepping up to the plate" approach to learning assessment has been the norm at UCLID. A medical fellow who has been involved for years speaks of the founding director's approach to learning by doing. *" Dr. Feldman's approach was to tell you to – go- do!"*

When an experienced member of UCLID was asked if any generalizations could be made about any profession related to their approach to joint enterprise. A physical therapy faculty member said, "*You can't generalize by profession. A social work student but forth more effort than another student last year. I think she had outside work prevented her from being alert. She was too busy" (Kay, Physical therapy faculty).*

An interprofessional group such as this would have people who want to watch on the sidelines, especially those in the less clinically-oriented professions. To be an effective community, UCLID needs everyone to participate. Actively taking those who are watching on the sidelines and expecting them to assess the patient creates a sense in them of being a full participant, of being needed. *"There I was handling it myself" (Pam, Dietician).*

The supportive environment of collegiality seems to allow this level or participation to occur without hard feelings and develops the sense in the newcomer that they are a capable, fully

participating member of the group. Finally, working with the clients helps the students to gain confidence. *" When I am working with the client I forget my uncertainty over my role in the group" (Julie, Education student).*

5.1.2.2 Looking for leaders

The experienced participant is thoughtful about the necessary leadership traits of new UCLID members. What traits lead to a successful newcomer who could jump in and contribute early, and who would leave UCLID, a leader in the field of developmental disabilities within their discipline? Leadership skills are seen as essential traits that lead to successful joint enterprise, successful clinical experiences. *"The idea is when they do the selection process they should be picking future leaders. We are training future leaders" (Steve,Medical fellow).* The characteristics or personality traits one experienced member saw as leading to effective leadership in clinical work included open-mindedness, curiosity, confidence, enthusiasm and being fully involved in the experience.

> *I think motivation is one of the things that runs a leader, open-minded, ready to learn, someone who understands what teamwork is. They should also be outgoing, curious about other's roles. They have to come with a desire to work as a team, showing interest in each other (Bob ,Medical Fellow).*

This expectation was an important concern to both medical fellows and one faculty member. Why is this such a big concern among the experienced members?

> *Part of being interdisciplinary is being curious about other people's roles. You really have to be extroverted. Nobody has to come with other training but at least they have to come with the desire to work as a team (Medical Fellow).*

The goal of the UCLID fellowship is to develop leaders, but it is interesting that there concern is in choosing people who have those traits coming in, not in how to develop them.

> *Some people are more confident, comfortable with themselves and one of the correlates of having high self-esteem is you are quick to talk up in a group. You have a new group that comes together quickly (Principal Investigator).*

The desire to have a group that "comes together quickly" is part of the concern. People may also believe that those traits can not be learned, but most be a part of the participant's intrinsic personality.

The experienced participant is thoughtful about creating successful UCLID experiences and creating future leaders in developmental disabilities. These desired traits also create joint engagement that effectively creates an interprofessional community of practice. Being open-minded and curious also allows for the exchange of professional tools, a third subtheme related to communities joint engagement.

5.1.2.3 Your Tools become our Tools

The third subtheme classified under joint enterprise relates to the use of assessment tools during the clinic. Wenger stresses that joint enterprise is the result of the collective process of negotiation. Negotiation is generally defined as coming to mutual agreement by discussion. To Wenger, their negotiated response to the situation leads to a sense of mutual accountability essential to a community of practice. The focus of this section is the critical place that the negotiation of each professions' tools has in the process of joint enterprise and shared repertoire.

UCLID participants during their time at the clinic, interview and assess the patient. Participants gather during the assessment and when pertinent suggest the approach of their

profession to assessing the patient. The psychology student does a behavioral assessment. The speech/language therapist gathers speech data. The physical therapist "feels those particular joints in a way" that is familiar to him, but unfamiliar to the others. The medical student notes how much is learned from watching others doing the patient's assessment. He speaks of it adding to his depth, indicating that he has added these assessment techniques to his repertoire.

> *Just watching a speech therapist gather speech data, and I get to do a physical exam alongside of (a physical therapist faculty)- how does she feel those particular joints? The way they go about an exam is different. It adds to my depth. (Medical student)*

This interprofessional experience creates a practitioner with more complex assessment skills. These participants spoke of "*bringing your profession to the table*" In joint engagement each person is expected to bring the aspects of their profession that are pertinent to the clinical situation and model it so that the others learn. They learn about the physical therapist's role in patient care and they learn a different way of doing an assessment of the joints. Gaining those skills makes them a better practitioner and a more interprofessional practitioner.

Gaining a better understanding of each profession's role in health care is dependent on the people from those professions having a good understanding of the assessments, but also having the ability to compellingly explain that role and demonstrate that role in the clinic setting, as well as in the seminars.

> *For example, we have a genetic counseling person and I was doing some of my pathetic genetic counseling. She said there were some things that you did that were good, but there were some major gaps. Yesterday she came and gave a talk about some things we could do differently (Bob,Medical Fellow)*

The joint engagement of these practitioners in assessing the patient brings each profession's tools and each practitioner's creativity into a space where what was a tool of one profession is now a tool of each person present. It has become an interprofessional tool.

> *We are just not that knowledgeable about what is out there or we are not used to using it. For example we had a patient who was having trouble with hearing problems and one speech therapy student said- oh I wish I would have known I would have brought this equipment. It was simple, kind of like a microphone that a child would put on his ears and then people would talk into the microphone. It can lead to creativity (Medical resident)*

It is an expectation of the experienced member that the newcomer learns the assessments and background information necessary for that week's case. *"So if the case for the week is a kid with a stroke or ADHD and the team leader is a social worker they will need to learn the medical things needed to present the case"(Sue,Faculty).* Success in this clinical activity, this joint enterprise is contingent on the team leader knowing the tools and the concepts (i.e. the medical things). It is because of the task assigned that the tool is learned. As they learn these medical things they become a more integral part of the community.

As the team comes together to write the final report they must negotiate a summary of the case called the case report. They are each deciding on an assessment based on tools they have used as a group. They may be familiar with some of the tools, and some of the tools are new to them. Having these additional tools adds to their depth of understanding of what is going on with the patient. Discussions around the tools may change perceptions and

understandings even to the people presenting them. This final report is then negotiated and truly an interprofessional report. The patient and family could have gone to each professional separately and received multiple reports. The outcome in terms of assessment recommendations would no doubt be different.

The benefit to the professional is also very different. The process of assessment with each profession utilizing their unique tools changes each individual. They develop an expanded number of assessment tools and improved techniques by observing each member assessing the patient. In the deliberation that occurs to come to a consensus on the patient they have a greater understanding of the patient, and also a greater understanding of the other professions. That appreciation will go with them whether they are working alone or interprofessionally in the future.

5.1.3 Shared Repertoire

UCLID participants certainly developed a repertoire of tools, products and stories whose meaning was negotiated during their time together. In the process of building community they developed resources jointly. These resources have added to their depth as they practice professionally. They also bind them together because of the time they spent together and negotiated the tools meaning.

5.1.3.1 Assessment Tools

In the previous section I discussed comments made by many participants about assessments used at the clinic. These tools were assessments or interventions that were part of the repertoire of that profession. The speech therapist had a unique way of assessing speech, the

genetic counselor knew a thorough way to advice patients, the audiologist had a microphone that was useful. These tools became a part of each participant's collective repertoire enriching what they bring to the clinic and what they will bring to patient care in their future practice.

The fact that in the task of clinic each gains a repertoire of tools has been discussed in the last section. However one additional tool seemed to have added significance to the group because it is not a tool of one professions but already an interprofessional tool. All the fellows learn the functional assessment tool.

> *Its one of the goals of UCLID that everyone learns functional assessment and to use it in the clinic setting. The neat thing about ICF(International Classification of Functioning) is that it is not owned by one profession. It is out there for anyone to use. (Medical Fellow)*

These tools gain meaning for each participant based on its use in this interprofessional setting. "We design the report around the five classifications of functioning and structure the interview around that also. That gives us a common tool to rally around" (Kay, Physical therapy faculty).

5.1.3.2 Shared Stories

When a group comes together events occur that get translated into stories. These stories get told over and over and their meaning is shared by the group. These stories also become part of the shared repertoire. *" We did the introduction thing. Everyone goes around and says they are from, who they are and kind of what they are doing here" (Tom, Social work student).* During the seminars many speakers were brought in from medical areas related to developmental disabilities. Each time a speaker came each UCLID participant was asked to "tell a little about themselves." There were many speakers, and many rounds of introductions. *"It's kind of like a joke now cause we could say each others. Yeah, we bring in a lot of speakers"(Tom,Social work student).* They share the story of the introduction thing. It is a connection between them. The repertoire generates meaning to them individually and to their developing identity as a member of an interprofessional community. It reflects the relationships they have developed and will give them shared points of reference in the future.

The first process in developing an interprofessional community of practice is community-building. It includes the themes of mutual engagement, joint enterprise and the shared repertoire. The initial UCLID Open House began the process of mutual engagement by setting the tone collegiality and informality. As the fellowship continued the group met in teams in the joint enterprise of the weekly clinic. That further built a sense of community through the shared goal of caring for the patients. In the end they have accumulated a shared repertoire of tools, stories and documents that bind the group together. Their professional languages may have differed originally but they now speak the same language. *"Health professions language and educator language are very different. You learn how to find the information"* (Julie, Education student).

5.2 THE PROCESS OF MEANING-MAKING

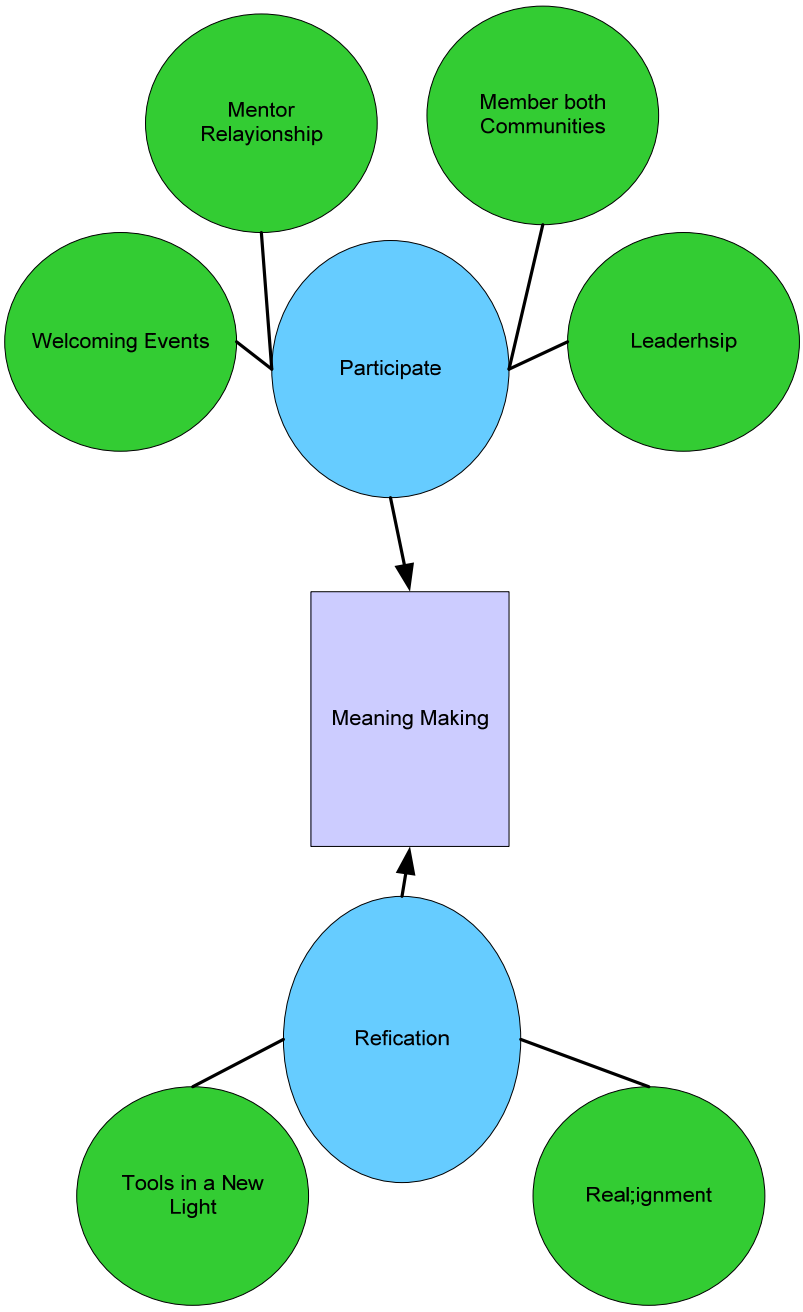

Figure 4: Meaning making

How has the interprofessional learning experience of the UCLID fellowship changed participants' ability to experience life and community? How have these experiences contributed to the participants' ability to generate and articulate the meaning of the interprofessional

community of practice for themselves? In the situated learning framework meaning is not separate from the practices and contexts in which it is negotiated.

These professionals, already a member of their disciplinary community of practice have negotiated meanings of their practice in those settings. A physical therapy student has learned assessment skills and tools from the faculty member in physical therapy. But now, this student has experienced assessing the patient along with members of other professions. He has been exposed to other assessment tools and other professionals' ways of approaching this experience. The meaning of the patient assessment is different for them because of this interprofessional experience.

Meaning reflects our changing ability, individually and collectively to experience our life and the world as meaningful, or significant (Wenger, 1998). While philosophically meaning relates to the ontological conceptions of reality and the nature of being, the meaning-making process referred to in this study is focused on the existential process of becoming and that this professional student who is becoming a member of that profession is making meaning of the UCLID experience and that has altered their identity.

How are the components of participation and reification evident and significant to the participant? The components of participation are both the process of taking part in UCLID, and the relations with others (Wenger, 1998) that reflect UCLID participation. Reification indicates the things that give form to their experience. How do these components contribute to the participant's ability to generate the meaning of the interprofessional community of practice for themselves and for UCLID?

Table 6: Meaning-making

Participation	**Reification**
• <u>Becoming a member of both communities</u> **N** • <u>Mentor/fellow relationship</u> • Welcoming events **N** • Being treated respectfully • Taking leadership role E	• <u>Tools in a new light</u> **N,E** • <u>Alignment of UCLID with their professional life</u> **E** • Statements of their professional role **N** • UCLID stories **N** • Assessments **N,E**
• Outcome Member of interprofessional community.	• Outcome: Professional life and tools have new meaning.

KEY: N= important primarily to newcomer, E= important primarily to expert, Major aspect of subtheme-underlined

5.2.1 Participation

Members of UCLID participated in the fellowship over the course of a year. They attended courses in developmental disabilities and interdisciplinary clinical care and leadership during the fall term. The spring term combined seminar sessions with the clinical program. There were also some social events, the open house and end of year programs. Some members met informally throughout the year.

5.2.1.1 Becoming a Member of both Communities

Participation in UCLID has changed the identity of those who participated. Wenger speaks about meeting at the boundaries and the nexus of multimembership. What is the

relationship between their disciplinary community of practice and their interprofessional community? Do they become a member of two communities, a professional one and an interprofessional one? Or, was the UCLID experience just a meeting at the boundaries of their professional neighborhood?

Participation in UCLID had meaning for many members in the choices they made or were planning on making in there workplace.

> *I definitely am looking for interdisciplinary in my work environment. Because of my ethnic background, and because of that course I took at the school of public health so I think I created the first Hispanic clinic in southwestern Pennsylvania. I am sure the volunteers in my clinic are very different because it is very interdisciplinary. Definitely it is something I am going to continue in my career (Steve,Medical Fellow).*

This medical fellow had an egalitarian approach to health care before his participation in UCLID. His mother was a surgeon, who had been a nurse. The course he speaks of he took at the school of public health. It was called "Interdisciplinary prevention in well communities." So for him UCLID is part of a process of interprofessional participation.

> *I will use being interdisciplinary as a great mechanism for innovation, for coming up with really interesting ideas because you have people from different perspectives doing research together. (Dave Program Director)*

> *Grants are always looking for interdisciplinary projects. I am comfortable being involved in interdisciplinary projects now and in writing for those grants. I think there is a real need for interdisciplinary research in the health professions (Dave ,Program Director)*

The medical director speaks of participation as inspiring interest in doing research with people from other professions or disciplines. He also made note of interdisciplinarity as a mechanism for innovation. This fact has been documented in the innovation and creativity literature. Innovation is spurred by finding 'intersectional' ideas that cross between disciplines (Johansson, 2007).

> *"I learned how to learn from others and appreciate what they know." (Bob, Medical Fellow)*
>
> *"I have learned to love transdisciplinary" (Ann ,Medical student).*
>
> *"Some really great ideas came out of those discussions" (Kay, Physical therapy faculty).*

These statements speak to the emotions of appreciation and love of the experience of being in an interprofessional setting. This is surely a positive result of an interprofessional experience. The meaning they made of the experience was to see it in a very positive light. Transdisciplinary usually refers to a system without any boundaries between the professions (Lattuca, 2001). I am not sure of the intended meaning in this statement, but his positive perceptions certainly clear.

"I think BTG prepared me to work collaboratively in teams. I learned a great deal of compromise, brainstorming and sharing responsibilities" (Bridging the Gaps student).

5.2.1.2 The Mentor/Fellow Relationship

The second aspect of participation that coded as important by participants was the mentor/fellow relationship. Some newcomers had a mentor from their profession and others from a different profession. There were some participants who were not formally assigned a mentor. We discussed this relationship in the context of engagement and how it helped to form

community. How has this relationship impacted the changes to their identity as they move forward in their chosen professions?

> *It made me realize that I was not working with a homogenous group, but a group with many different perspectives about what a disability is and is not. Neither is right or wrong, they just have a personal opinion that is right for them. This is one of the things that UCLID has helped me to see – being a leader in the field of disabilities is creating a community of many choices, and listening to individual needs (Pam, Dietician).*

Creating a community of many choices and listening to individual needs. Wow! I couldn't have said it better. By creating a community of many choices she was speaking of a dialogue she had been included in during UCLID that was discussing terminology related to the disabled:

> *I remember a fairly lively discussion about terminology in the disability community. At that time it was being debated if the term 'retarded' should be ditched. This brought out huge amounts of passion from all camps. I won't go into the discussion but this whole experience made me realize that I was not working with a homogenous group (Pam, Dietician).*
>
> *Collaborating on different ways to solve an issue is essential because there is never one solution to any problem (Bridging the Gaps student)*

A lesson learned from this conversation is that there are many views of an issue and the debate can be heated and that this is a positive thing. Learning to listen to other views and appreciate them is a positive outcome of participation. The dialogue that goes on in an interprofessional encounter develops capacity to see multiple viewpoints and the process of debate as a positive, not a negative thing.

"They can debate, discuss, throw out an idea. It is not kind of what they think. They are just throwing out ideas and everyone kind of chews them over and then builds on more ideas. That kind of back and forth banter is wonderful. I have never seen it…. In UCLID it's just discussions and its fluid and it's respectful (Tom, Social work student).

This person also took away from the encounter an appreciation for a type of dialogue that he was not used to. He has a different understanding of the possibilities of real discourse.

I worked as part of an interdisciplinary team. This experience only strengthened my belief in the effectiveness of interdisciplinary relations- so much that I will continue work in this manner Bridging the Gaps student).

5.2.2 Reification

A reification is an abstraction that is treated as if it were a real, or concrete thing. For UCLID participants it might be a logo, seeing the term UCLID on the internet, using the functional assessment tool in another setting, a movie the original program director had them see. It is a useful concept to describe how interaction with others produces meaning. It gives form to our experience by producing objects that can be talked about and it condenses the experience into a tangible object (Wenger, 1998). What objects give form to the experience of the meaning of UCLID for participants? In coding initial responses experienced members spoke often about the assessment tools. These created points of focus around which the negotiation of meaning became organized.

5.2.2.1 Tools in a new light- Adding to my depth

The experienced participants, the mentors and medical fellows spoke particularly of the importance of the functional assessment tool developed from the International Classification of Functioning (ICF) as a symbol or reification giving meaning to the UCLID experience. The ICF is the World Health Organizations (WHO) framework for measuring health and disability at both individual and population levels. Many participants spoke of the importance of tools to their experience.

> *I get to see how the speech/language pathologist gathers speech data and I get to do a physical exam alongside of (physical therapy faculty)- how does she feel those particular joints? The way they go about an exam is different and that adds to my depth (Bob, Medical Fellow).*

The term transdisciplinary acts as a reification of the UCLID interprofessional experience for some participants. " I have learned to love transdisciplinary- which I define as I have learned skills from other disciplines. I use psych and speech instruments, social work. I have learned the research part- community-based research and that really excites me"(Ann, Medical student). The tools are what this participant says they "take away from the experience." "Without UCLID I would have no idea what it id like to go to the CDU. I wouldn't know what a MASK or a behavioral assessment is. So that is what I am taking away from this experience" (Tom, Social work student). These tools transform the individuals and the tools themselves are transformed

5.2.2.2 The Work of Alignment of UCLID to their Professional Life

When the UCLID Fellowship is over these professionals go back to their lives, both private and public. How has their identity has changed because of this experience? How do they define themselves differently? How do they define their work? How do these components contribute to their ability to generate and articulate the meaning of the interprofessional community of practice for themselves and as an entity itself?

Alignment refers to fitting our past experiences into our other enterprises (Wenger, 1998). After their UCLID experience is over participants continue to integrate the experiences into how they view themselves and how they envision their future work life. As they move on they can imagine possibilities based on their newly negotiated view. If the interprofessional learning experience was positive for them they may align the choices they make to allow their interprofessional identity and community to continue to develop

When asked, participants expressed a desire to remain involved with interprofessional work. For some it was to be involved in an interdisciplinary research project.

> *I want to do collaborative, team-based research as a result of my UCLID experience. I am interested in prenatal pesticide exposure development and I will work in an interdisciplinary team doing that research* (Bob, Medical Fellow).

For others, it was the change in attitude towards being with people with different perspectives when working in an interprofessional group.

> *One of the things UCLID helped me see is that being a leader in the field of disabilities is creating a community of many choices and listening to individual needs. Blind individuals hate curb cuts. Wheelchair users love them. It's a fabulous, challenging community to work with and be part of (Pam,Dietician).*

I learned from other disciplines may have a completely different or unique perspective on an issue and it will be wise to include them when problem-solving in my future medical work (Bridging the Gaps student).

A medical resident said that he would chose his next position based on the ability to work in interprofessional settings. Another medical resident is following UCLID's founding director to Stanford to continue to work with her.

The new place I am going to is going to be all teams and based on my experience with LEND this is what I want to do. I interviewed at places that are team focused. UPMC does not do team-focused interventions due to a perceived scarcity of resources. (Bob, Medical Fellow)

The second process of an interprofessional community is meaning-making. How have these experiences in UCLID contributed top the participant's ability to generate and articulate the meaning of the interprofessional experience? Based on the interviews themes of participation and reification were evident and reviewed in this section. Subthemes were the sense of becoming a member of both communities, professional and interprofessional, the mentor/ fellow relationship, the experience of gaining new tools to use as a practitioner, and the meaning the experience has for the professional choices they plan on making in the future.

5.3 THE THIRD THEME: THE ESSENTIAL ATMOSPHERE OF RESPECT

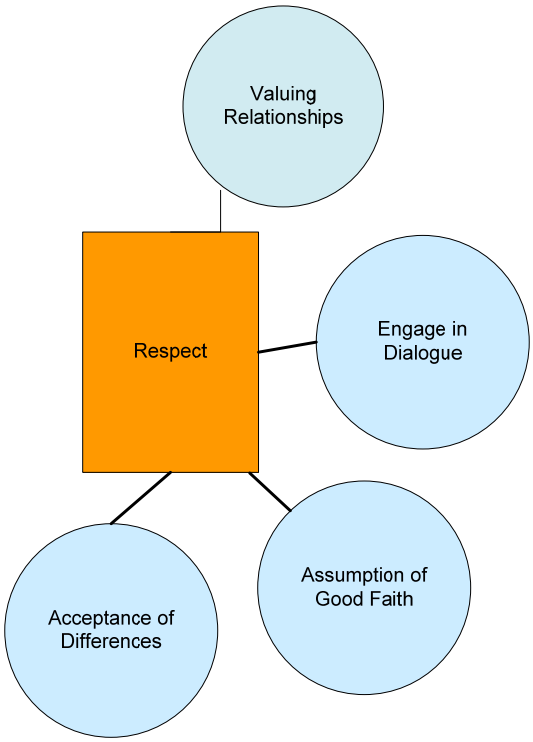

Figure 5: Respect

Feeling respected is the 'elephant in the room' of this study. It is the obvious aspect that participants speak of, one that is not part of the Wenger conceptual framework. It is critical in interprofessional community development because of the power differentials in the room. Students bring with them the history of power differentials that have developed in health care. To become a community, an interprofessional community, there needs to be an equalizing of status.

Creating an atmosphere of respect can equalize and take away the mantle of hierarchy that comes as baggage. Respect creates symmetry, empathy and connection even in those seen as unequal (Lawrence-Lightfoot, 1999). It adds reliability to social interactions and enables people to work together in a complimentary fashion, instead of each person having to understand

or even agree with each other every time. Respect is very important to communities because it helps people get along. It is an acknowledgement of personal worth (Parse, 2006)

I believe respect is the key to the Wenger themes of community – mutual recognition, joint engagement and shared repertoire. The theme of respect occurred frequently in UCLID interviews and in the journal writings from the pilot study.

Table 7: Feeling Respected

Assumption of good faith and competence	Willingness to engage in dialogue	Valuing the relationship	Acceptance of differences
• Causes increased self-worth • Commands power • Accept differences • Trust in others' abilities	• Willing to put your thoughts in dialogue • Genuinely listen to others and consider their thoughts • Mutually develop shared thoughts	• Fortifying alliances • Taking the time to understand • Despite differences	• Neither is right or wrong • Community of many differences • Leads to trust
Outcome Levels power field	Outcome Encourages true dialogue	Outcome Leads to relationship development	Outcome Leads to understanding

5.3.1 Assumption of Good Faith and Competence

Statements that related to respect are a theme in the interviews with UCLID participants and with the Bridging the Gap journals that were part of my pilot study.

The concept respect builds on an assumption of good faith and competence in another person. Self respect, on the other hand, would assume that good faith in your own competence. The participants in UCLID often spoke of differences they felt in professional encounters in their professional communities and in UCLID:

> *The people associated with UCLID were amazing. I should have been intimidated but that wasn't the feel at all. Which is so different than the experience I am in right now in medical school where it is so hierarchical. And as a medical student I am at the bottom of the totem pole and it is 'yes mam and yes sir' (Ann,Medical student).*

The acknowledgement of the participant's intrinsic worth by experienced members of UCLID caused the students to feel appreciated. This increased their sense of self worth and allowed them to open up- to speak – to state what they thought without fear of being shot down.

"They wanted to know my opinion. "*They asked me what views do I have and what do I think about it" (Julie, Education student).*

"First it is important to be friendly. Second it is important to respect the ideas and skill set of your partner" (Bridging the Gap student).

"They try to make you feel part of the team, open, friendly" (Pam, Dietician)

Respect levels the power playing field. Medicine's traditional powerful presence in the hierarchy of health care is strongly felt in interprofessional environments. In traditional settings it quiets the voices of those representing other professions. It is key that an atmosphere of

respect be present to create the collegial atmosphere necessary for an effective interprofessional community of practice to develop. Physicians and faculty who are the UCLID mentors establish a sense of respect for all members- an evening of the playing field – a leveling of the power throughout the group from the first Open House. This is essential to allow the interprofessional group to develop mutual recognition, joint enterprise and shared repertoire.

5.3.2 Willingness to Engage in Dialogue

A second subtheme of respect relates to the willingness to engage in authentic dialogue. As a social work student relates:

> *" What I have noticed, and this is among UCLID, I haven't noticed it so much in the school of social work, but they can debate, discuss and they will throw out an idea and everyone kind of chews that over and then builds on more ideas. You have to really be able to respect each other to be able to take that criticism and take 'that is not right because of this' and 'this is not what we were thinking.'" That kind of back and forth banter is wonderful. It could get, if they didn't respect each other, and if that base wasn't there, it could get argumentative, but it doesn't. I have seen different class situations in social work where someone says something and that is all they really want to hear. They don't really want to hear someone else's opinion. They don't really respect someone else. In UCLID it's just discussions and it's fluid and it's respectful"* (Tom, Social work).

Engaging in authentic dialogue requires the participant to be genuinely present and thinking. A medical student refers to the need to be completely there- not distracted or too tired to be present "*putting their all into it*". During conversations you must think through the thought and take the

risk to be involved in the conversation, to put your thoughts out there in the dialogue, even if you fear it might not be agreed with. Secondly, you have to be present to thinking about the others statements and responding, creating the back and forth banter.

> *I would suggest that all parties need to be willing to respect each others opinions. If certain ideas are dismissed, or taken less seriously, then that will break up the team-oriented approach. (Bridging the Gap student)*

When this supportive, facilitative environment is created it supports the growth of the community. The community becomes an integrated unit. The individual develops an identity as a member of the community. Additionally, new insights may develop. In this third space (Bhabha, 1994) negotiation takes place and an emergent situated practice is created and recreated.

5.3.3 Acceptance of Differences

There are many differences in the UCLID participants, professional differences and individual differences. As a dietician student stated :

> *This whole experience made me realize that I was not working with a homogenous group, but rather a group with many different perspectives on what disability was or was not. Neither is right or wrong they just have a personal opinion that is right for them. Being a leader in the field of disabilities is creating a community of many choices and listening to individual needs.*

An atmosphere of respect develops a culture where differences are accepted and the participants are willing to bridge the differences- to take them into account and develop a new integrated understanding, based on respect for their difference. Stated in another way, respect reflects the

postmodern assumption that we each have our own view of reality. This can allow for a more egalitarian view of each other and each other's profession.

Finally, respect in this context relates to the participants trusting each other. A relationship of reliance on each other develops. Trust creates a sense of community and makes it easier for people to work together (Misztal, 1996). Many times in conversation for example, a nurse's views of what should be done for a patient may differ from a physical therapist or a physician. If there is trust, the participant believes, although there are differences I understand your reasoning is correct for you and am willing to listen and explore the possibilities. When you suspend disbelief and truly listen, accepting the differences can lead to new insights.

5.3.4 Valuing of the Relationship

Respect means a valuing of the relationship despite the differences. Jacelon (2003) refers to the respect as interpersonal dignity. The author defines interpersonal dignity as that attributed to the person by others and manifested by the respect they received. It involves doing the work required to build the alliances. Doing work and taking the time to establish the relationship won't happen unless there is value attached to it.

Relationship-centered care is the vehicle for putting into actions a paradigm of health that integrates caring, healing and community, according to a report on relationship-centered care by the Pew-Fetzer Task Force (1994). The benefit of developing the relationship to practitioners according to the report, is it allows the addressing fully of the multiple manifiestations and causes of illness to address the well-being of the patient. Care is complex today and an

interprofessional approach that allows for all aspects of care to be coordinated and integrated into a the best plan for that patient.

But building understanding and relationships takes time. This takes a culture shift from that found in many US hospitals today. As one UCLID fellow pointed out;

> *To others it is sort of like the Army where you have different ranks and different levels, different divisions and battalions. Here you have different professionals from different areas who bring different things to the table. I was seeing teammates and we were working together towards a goal(Stephen, Medical fellow).*

His experience of the culture in the US was a hierarchy similar to the army. Building a relationship-centered approach requires a culture change. This participant suggested seeing each other as teammates working together towards a goal. The goal makes the effort worthwhile. Having a clear goal, one that is altruistic, to improve the life for children with disabilities creates community.

In summary then, I propose exploring the impact that respect has on the establishment of an interprofessional community of practice. Four aspects of the concept have been teased out by comments of the UCLID and Bridging the Gaps participants; an assumption of the good faith and competence of all members, a willingness to make the effort to engage in authentic dialogue, a valuing of the relationship and an acceptance of each others differences, This concept would be an important area to continue to study as we evolve the theory of an effective interprofessional community of practice.

5.4 SUMMARY OF FINDINGS

Interviews with students participating in interprofessional learning environments, both the fellows of UCLID and the summer interns in Bridging the Gaps allowed me to begin to explore and analyze that experience as a initial groundwork for a theory of an effective interprofessional community of practice which will allow for the development of a model that can be utilized to initiate effective communities of practice, that brings health profession students together .

Three processes organize the findings. Participants in UCLID built community through their mutual engagement in the initial socialization and seminars of the fall, and then jointly engaged in clinic that did further build community coming together through the shared goal of improving the health of the developmentally disabled. Each student brought the tools of their profession as they jointly assessed the patient. Those tools became the shared repertoire of the interprofessional community.

While coming together as a community each participant made meaning of the experience that may well shape their future professional experiences. Social immersion in this interprofessional environment with the atmosphere of informality and collegiality resulted in professionals who could also identify themselves as interprofessionals. Participants spoke with passion of the need they felt to be in this type of community in their future work. These students who then become working professionals will take this expectation of an interprofessional community to health care settings and encourage, and lead the development of these changes in the work setting.

A third process was going on throughout the fellowship. An essential atmosphere of respect developed. Feeling respected includes assuming the good faith of each other and of

everyone's competence as a professional. They were willing to engage in dialogue and accept that they are "a community of many differences."

The implication of these findings for theory and for practice will be explored in chapter seven. This includes considering what a model of an effective interprofessional community of practice would look like, including the hallmarks, criteria and strategies for implementation. Challenges to the implementation of the models for the institution, the teachers and the students will also be explored.

6.0 CONCLUSIONS

In many academic health centers throughout the United States administrators and faculty have struggled with implementation of new requirements for interprofessional education of health profession students. Thinking in traditional curricular mindsets, the hurdles seem overwhelming. Different schedules, lack of extra credits and lack of incentives for teachers all make the task seem impossible. The findings of this study would suggest a different model, one that creates community in many ways.

This study explores the perceptions of members who are in interprofessional settings, analyzing their statements, looking for the themes and relationships that have implications both for theory and practice. The conclusions highlight contributions of this dissertation for fostering more effective interprofessional communities of practice, first the implications for theory, and second, for practice.

The findings of the study indicate participants developed a community of practice, specifically, an interprofessional community of practice. The medical student, the social work student, the dietician, already members of their professional communities, came together through mutual engagement and joint enterprise. At the same time they developed a shared repertoire of tools, techniques and stories. Initial seminars in the fall semester had them meeting at their professional boundaries. As they began to meet at the clinic and work with patients using the tools each brought to the table, community building continued. Tools, once the proprietary

interest of the speech therapist, or the physical therapist, became UCLID tools, with a negotiated, new meaning to the group and to the varied individuals. Each member "gained depth" as an interprofessional practitioner. At the same time they were making meaning of the experience. By participating they have experienced becoming a member of both communities and realigned their professional life to include a desire for an interprofessional work life.

6.1 IMPLICATIONS FOR THEORY

This study offers an organizing theory of the phenomenon of interprofessional learning environments. The findings of this study further enrich the initial theoretical lens by Wenger (1998) contributing additional depth and breadth to the original theory. Based on the responses of the UCLID and Bridging the Gaps participants whom I interviewed, this leads to a theory of an *effective* interprofessional community of practice. Figure 6 graphically displays the main concepts and their relationships, based on my study.

This study provides depth by taking the processes and themes of Wenger's theory and adding subthemes emerging from the experiences of the participants. For example, I analyzed mutual engagement for emerging subthemes concerning role articulation, mentors and collegiality and informality. Under the theme of joint enterprise I discovered the purposeful activities that constituted UCLID. This study provides detail to the concept of joint engagement by exploring newcomers' experience in the clinic including the experience of "stepping up to the plate" and "bringing their profession's tools to the clinic sessions." In the process of meaning-making this study provided a surprising view of the mentor relationship. UCLID leaders

assumed pairing a newcomer with a mentor from another field would be best, but both newcomers and experienced members preferred having a mentor from the same field. These distinctive subthemes develop our conceptual understanding of an effective interprofessional community of practice.

Additionally, new understandings emerging from the study based on events described by the participants include the process of feeling respected and the subthemes of that process. This adds breadth to the Wenger theory. Dimensions of feeling respected were described as the valuing of relationship-building with each other, engaging in dialogue, assuming the good faith of each, and accepting their differences. Additionally, my dissertation adds breadth by interpretations of the use of a profession's tools to add to their professional repertoire and to collaboratively use the tools for interprofessional assessments. After their UCLID experience is over participants continue to integrate the experiences into how they view themselves and how they envision their future work life

An effective interprofessional community of practice means that members of different professions have developed a cohesive practice and sense of community through a process that includes community-building, meaning-making, and feeling respected. These three processes are the hallmarks of an effective interprofessional community of practice. Being effective means a community that works cohesively, understanding each other's roles and tools to synergistically give excellent patient care or to problem solve issues of health or health policy.

In community-building, members experience the building of community through their mutual engagement in the initial socialization and seminars of the fall and then joint engagement in clinic that further builds community, coming together through the shared goal of improving

the health and problem-solving. Each student brings the tools of their profession as they jointly assess the patient. Those tools became the shared repertoire of the interprofessional community.

Participants make meaning of the experience to their professional lives. Social immersion in this interprofessional environment with its atmosphere of informality and collegiality results in a professional who comes to want to identify themselves as interprofessional. Someone who is interprofessional can work cohesively and synergistically in community with other professionals to effectively deliver patient care or problem-solve. They are looking for future work experiences that will allow them to be in this type of community.

A third process of an effective interprofessional community of practice is the practice of cultivating an essential atmosphere of feeling respected. Feeling respected includes assuming the good faith of each other and everyone's competence as a professional. Participants are willing to engage in dialogue and accept that they are "a community of many differences." Finally, they value their individual relationships and their community.

This initial study can serve as the foundation for further studies to elaborate the theory. Initial themes can be explored by comparing with the experiences of other students involved in interprofessional learning environments. Concepts can be further elaborated by exploring them in other studies. For example, a next study might further explore the concept of feeling respected.

This theory can be useful in the design of interprofessional programs in academic health centers or any interprofessional learning environments. It offers a framework to guide the development of program structures and processes. Themes and subthemes offer a guide to identifying learning objectives and criteria for evaluation. It identifies the importance of a culture of respect, collegiality and informality.

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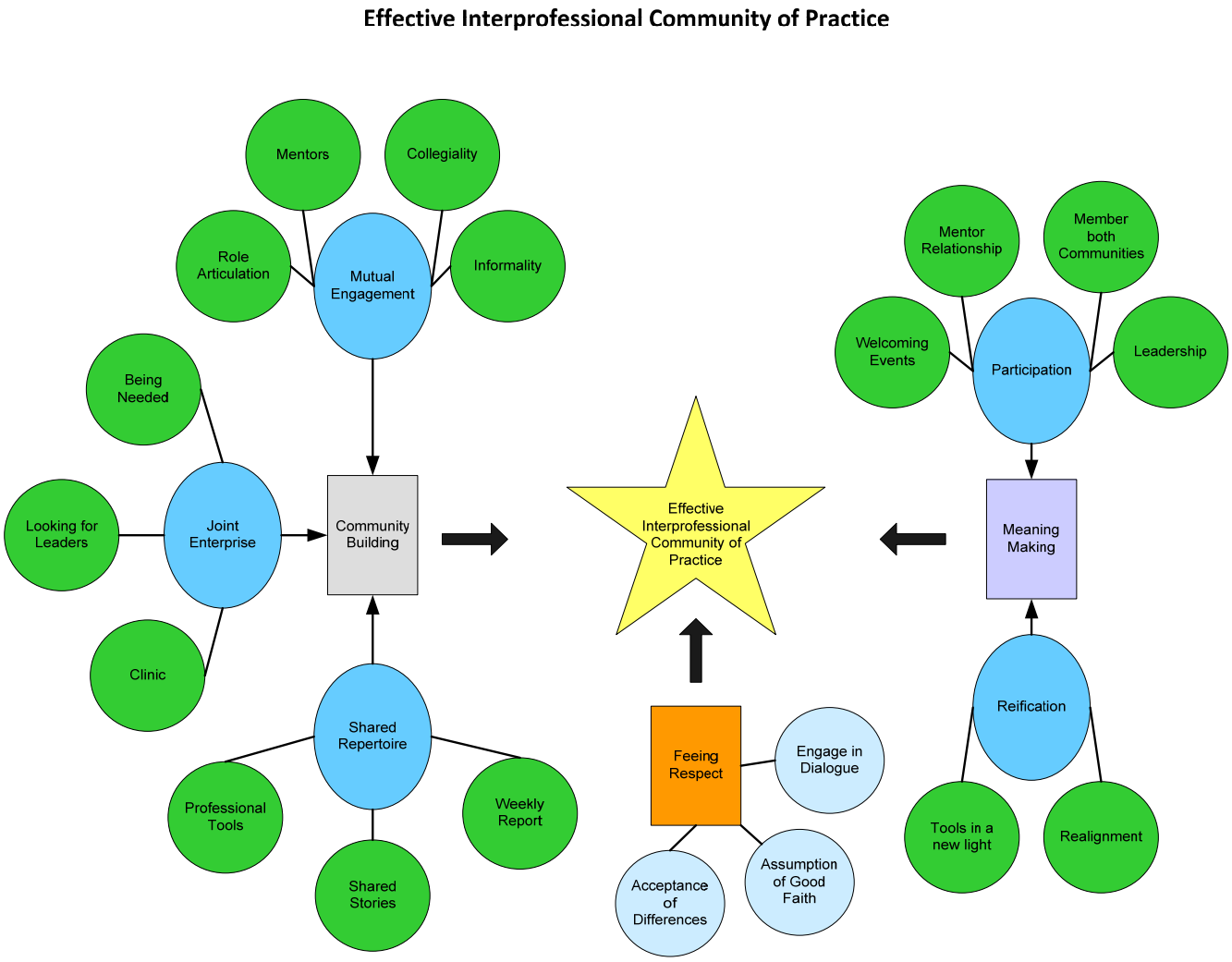

Figure 6: Model of an Effective Interprofessional Community of Practice

6.2 IMPLICATIONS FOR PRACTICE

In this section I offer hallmarks, criteria and strategies for beginning to translate the theory into an educational program. These criteria and strategies originate in the study findings and additionally are based on my assessment of the key factors of successful programs in existence. In particular I base some of my suggestions on the CHIPS program at the University of Minnesota (www.chp.umn.edu) and the Center for Health Science Interprofessional Programs at the University of Washington (interprofessional.washington.edu). Future research based on the outcomes of programs developed using my framework will help to further define the theory and in turn contribute to more effective interprofessional communities of practice.

6.2.1 Hallmarks of an effective interprofessional community of practice

The hallmarks of an effective interprofessional community of practice are evident in the everyday interactions of its members. The interactions reflect the social environment of respect, collegiality and informality. Members work collaboratively, sharing leadership responsibilities. They share a vision of high quality patient care.

The term effective indicates that it creates an interprofessional environment among the participants and that the individual develops an identity that includes not only being a member of their profession, but seeing themselves as an able member of an interprofessional community in their practice environments

6.2.1.1 Criteria guiding program development

Developing a program involves the initial stages of development, capacity building and planning for sustainability. The criteria for establishing an effective interprofessional community of practice based on the main findings of the study include:

1. *Develop a respectful atmosphere or culture*. Any interprofessional program begins with a culture change. Changing culture has been portrayed as a difficult thing to accomplish but I propose that the experienced members of UCLID accomplished this in their initial gathering by exhibiting the characteristics of respect described in the study. Something as simple as a leader asking to be called by their first name sets the tone for the entire experience because it creates a culture of informality leading to relationship on an even ground.

2. *Work together towards a goal, such as improving the health of an individual, a patient population, or impacting a policy issue.* The study and the literature point to the increased effectiveness of the interprofessionalism when the students are in clinical situations. When in classroom or seminar environments a focus on a clinical area of health improvement goal brings students together working on a real or genuine task.

3. *Mentors pair with students of same profession*. Interprofessional learning environments bring together people from different professions. Each member is developing an understanding of those professions represented by other members. An individual must strongly represent what their profession brings to health care. The ability to do that depends on many factors. Matching each novice student with a mentor from their profession assures that the student brings that role clearly to the group. The student grows individually as a member of that profession and the group has a stronger sense of what that profession "brings to the table."

4. *Create hybrid tools.* Participants of UCLID felt strongly about the depth that they developed as a practitioner when they add each other's tools to their repertoire. Focusing discussion around what each profession brings to the table provides a vehicle for identifying the part of comprehensive care each profession provides. It is very satisfying to the member to have other ways to assess and treat patients. Their depth as a practitioner grows.

6.2.1.2 Strategies

Implementation of a program is led by people using an inclusive leadership style. Input is encouraged by all stakeholders, most importantly, the students. Students can be a source of innovative ideas. They are the main stakeholders who will carry the program out and their honesty will help to create an effective program. An initial survey is developed using an appreciative inquiry process seeking out examples of interprofessionalism that already exist such as interprofessional courses and clinicals, and building from there. Other strategies include:

1. Begin program with survey and interviews of faculty, administrators and students using an appreciative inquiry process. This process focuses on constructive optimism and realistic questioning (Cooperrider, Whitney, 2000).
2. Meet with stakeholders to present themes of study. Encourage an appreciative approach while being realistic.
3. Assemble a team to develop program with members of all stakeholder groups.
4. Facilitate faculty development/involvement. This should be a broad approach including seminars and visits to established interprofessional programs.
5. Include components, considering the following:

    a) *Learning opportunities*- Courses in areas like Health care ethics, Community health, Population Based Care, Patient Safety, Informatics in

formats including traditional course structure, Lunch time learning, Unique formats like – “Friday Night in the ER (University of Minnesota), retreats, competitions

b) *Service Learning*- BP screenings, immunizations, volunteering at fundraisers, etc

c) *Social opportunities*-. Interprofessional lounge with coffee and computers, consider other unique ideas like University of Colorado who has all students pick from a list of areas of interest and are placed in communities with a faculty mentor. The community presents something to all communities monthly

6. Create networks with other interprofessional programs. Attending conferences build a community and establish ways of communicating like wikis or teleconferences.
7. Establish evaluation system. Input from a committee of all stakeholders should evolve a comprehensive evaluation system and review the results.

6.2.1.3 Benefits

The following are benefits of an Effective Interprofessional Community of Practice.

Professionals:

1. Gain an identity as a member of an interprofessional community that carries over to the practice environment.
2. Develops a deeper understanding of their own practice and how it can complement and reinforce other professions.
3. Improve the quality of patient care by improving work collaboration.

4. Increased their professional satisfaction. Mutual support eases stress.

6.3 PRACTICE CHALLENGES

Challenges to the institution are numerous, but can be overcome. The thing to remember is that this is a change that administrators and students want. The faculty will have concerns about their ability to teach/ facilitate in the resulting programs. Support from the top administration of the health science program is important. From that support faculty, students and staff will have the confidence to risk becoming involved in developing the program.

The people responsible for putting the program together should have a participative, collaborative leadership style and implement the process using an appreciative inquiry technique. This process has been successful in implementing organizational culture change at Indiana University's medical school and is detailed in a report from the Pew-Fetzer Task Force (Retrieved on 3/11/08 at www.future**health**.ucsf.edu/).

Finally sustainability of the program will be a challenge. Start-up funding is available but support for building funding into the health science budget to allow the program to continue after initial grants lapse is important. Continuing to build faculty and administrative support and input is important. Development of a committee structure with lots of involvement from all levels is important. Another necessity is a planning and evaluation process with input to, and involvement from the top deans and administrators. To insure sustainability keep individuals, including student leadership engaged in development, oversight and planning.

Faculty who will be the facilitators of the interprofessional program may have the most hesitation at the beginning. This can be overcome by involving them in all stages of development and providing professional development to gain skills and confidence to lead the program. A broad-based committee that meets regularly to discuss issues may be helpful in managing transitions.

Based on all the literature, the students are overwhelmingly positive about this change to their education structure once involved in the program. The initial challenge is to explain the purposes of interprofessionalism. Their involvement in program development will help to insure success. Faculty/mentor relationships to help them understand their profession's role in the interprofessional picture are important. They will be your best source of ideas.

6.3.1 Final Thoughts

Health professionals can become a cohesive community that works passionately together to care for an individual or solve health care issues. In the end it comes down to values. Respect, collegiality and informality are the glue that establishes relationships. People who come together in environments designed using these principles build a cohesive community. They make meaning of those experiences that are life changing. Values of respect and collegiality flow through a community of people driven by a common goal to improve the quality of life of the patients they care deeply about.

APPENDIX A

IRB APPROVAL LETTER

University of Pittsburgh
Institutional Review Board

Exempt and Expedited Reviews

University of Pittsburgh FWA: 00006790
University of Pittsburgh Medical Center: FWA 00006735
Children's Hospital of Pittsburgh: FWA 00000600

3500 Fifth Avenue
Suite 100
Pittsburgh, PA 15213
Phone: 412.383.1480
Fax: 412.383.1508

TO: Susan Sterrett

FROM: Sue R. Beers, Ph.D., Vice Chair

DATE: June 6, 2005

PROTOCOL: Bridging the Gap: A Case Study of an Interdisciplinary Educational Experience in Health Care

IRB Number: 0505154

The above-referenced protocol has been reviewed by the University of Pittsburgh Institutional Review Board. Based on the information provided in the IRB protocol, this project meets all the necessary criteria for an exemption, and is hereby designated as "exempt" under section 45 CFR 46.101(b)(1).

The regulations of the University of Pittsburgh IRB require that exempt protocols be re-reviewed every three years. If you wish to continue the research after that time, a new application must be submitted.

- If any modifications are made to this project, please submit an 'exempt modification' form to the IRB.
- Please advise the IRB when your project has been completed so that it may be officially terminated in the IRB database.
- This research study may be audited by the University of Pittsburgh Research Conduct and Compliance Office.

Approval Date: June 6, 2005
Expiration Date: June 6, 2008

SRB: ky

APPENDIX B

IRB RENEWAL LETTER

University of Pittsburgh

Institutional Review Board

3500 Fifth Avenue
Ground Level
Pittsburgh, PA 15213
(412) 383-1480
(412) 383-1508 (fax)

MEMORANDUM

TO: Susan E. Sterrett, MSN

FROM: Christopher Ryan, PhD, Vice Chair

DATE: January 4, 2007

SUBJECT: IRB #0610020: Forming Communities of Practice: Education of Health Professionals in Interprofessional Settings

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The above-referenced proposal has received expedited review and approval from the Institutional Review Board under 45 CFR 46.110 (6,7).

If applicable, please include the following information in the upper right-hand corner of all pages of the consent form:

Approval Date: January 4, 2007
Renewal Date: January 3, 2008
University of Pittsburgh
Institutional Review Board
IRB #0610020

Please note that it is the investigator's responsibility to report to the IRB any unanticipated problems involving risks to subjects or others [see 45 CFR 46.103(b)(5) and 21 CFR 56.108(b)]. The IRB Reference Manual (Chapter 3, Section 3.3) describes the reporting requirements for unanticipated problems which include, but are not limited to, adverse events. If you have any questions about this process, please contact the Adverse Events Coordinator at 412-383-1504.

The protocol and consent forms, along with a brief progress report must be resubmitted at least **one month prior** to the renewal date noted above as required by FWA00006790 (University of Pittsburgh), FWA00006735 (University of Pittsburgh Medical Center), FWA00000600 (Children's Hospital of Pittsburgh), FWA00003567 (Magee-Womens Health Corporation), FWA00003338 (University of Pittsburgh Medical Center Cancer Institute).

Please be advised that your research study may be audited periodically by the University of Pittsburgh Research Conduct and Compliance Office.

CR:dj

APPENDIX C

INITIAL INTERVIEW PROTOCOL

Initial Student Interview Questions

Background
What is your latest degree?
What attracted you to your field of study?
What work experiences have you had in your field?

What was it about this program that attracted you?
How did you find out about the program?
What did you hope to accomplish by involvement in the program?

Mutual Engagement
Initially, did you feel a part of the group, or an outsider?
What activities allowed you to feel like you were a part of the group?
Were there activities the group did socially, beyond the program hours?
Did you email or talk on the phone with another member of the group?
Did you feel you were a valued member of the group?
How often did another member ask you for advice?
Did you feel respected? If so how?
Did you feel connected to other members of the group? Can you explain?

Joint Enterprise
In a clinical situation, how was it decided who did what work to complete the task?
Think of a situation were there was disagreement. How was it resolved?

Shared Repertoire
What medical terms used in the group were unfamiliar to you?
If two terms were used in a similar situation how was it decided which to use- or was a new term devised?
When the group was seated did you notice any pattern in the seating arrangements?
Were any forms designed, or papers written? What discussions took place about different fields view of xxx?
Any policies? From which discipline?

APPENDIX D

SECONDARY INTERVIEW QUESTIONS

1) Can you describe a time when you felt respected? What happened? What contributed to that experience?

2) When you felt respected, in what way did that impact your actions?

3) What do you think are the most important ways to convey respect?

4) How would you define respect?

5) As you look back do any events stand out related to feeling respected?

6) Is there anything else you would like to tell me about feeling respected?

APPENDIX E

REQUEST TO PARTICIPATE LETTER

May 12, 2005

Student's Name

Bridging the Gap program

School of Medicine

University of Pittsburgh

Dear (Student),

I am a graduate student in the School of Education at the University of Pittsburgh doing my doctoral dissertation research on interdisciplinary education in the health professions. A very important part of my research will be the student's experiences in the Bridging the Gap program.

If possible I would like to administer a short questionnaire and have you respond to questions in your journal assignments. Participation in this study is voluntary. No individual responses or opinions will be identified.

I estimate that the questionnaire and journal questions will each take about 10 minutes to complete. The journal questions will be spread throughout the 8 week program. I know that your time is valuable, but I hope you will agree to participate and contribute your expertise and knowledge. I believe the result will be valuable to all those involved in interdisciplinary educational endeavors.

Please respond to this letter if you are willing to participate in this pilot study. If you have any questions about your participation please don't hesitate to email or call me.

I have provided my email and phone number below. Thank you for your time and consideration.

Susan Sterrett

Ses104@pitt.edu

412-828-0826

Dept. of Administrative and Policy Studies

School of Education

I agree to participate in the pilot study of interdisciplinary education

_____

APPENDIX F

CONSENT FORM

Approval Date:

Renewal Date:

University of Pittsburgh Institutional Review Board
IRB Number:

CONSENT TO ACT AS A SUBJECT IN A RESEARCH STUDY

TITLE: **Forming Communities of Practice: Education of Health Professionals in Interprofessional Settings**

PRINCIPAL INVESTIGATOR: Susan Sterrett, M.S.N., M.B.A. Doctoral Candidate

205 Cornwall Drive

Pittsburgh, Pa., 15238

Phone: 412.828.0826

e-mail: ses104@pitt.edu

FACULTY MENTOR: Maureen Porter, Ph.D., Professor of Education,
5709 Wesley Posvar Hall, Pittsburgh, PA 15260
Phone: 412.648.7041

Why is this study being done?

The purpose of this study is to explore an interdisciplinary education program for health care professionals, to gain a better understanding of the experiences of the students and faculty related to teaching, and learning with students from different health care disciplines in formal and informal settings.

Who is being asked to take part in this study?

Twenty long-term intensive fellows and fifteen core faculty involved in UCLID, University Community Leaders and Individuals with Disabilities, will be invited to participate in this research study.

What are the procedures of this study?

If you agree to participate in this research study, you will be interviewed in a classroom at the university. The semi-structured interview involves questions which ask about your experiences in the UCLID program related to learning in an environment with students from other health professions and will take approximately ½ - 1 hour to complete. To help us more thoroughly analyze your responses, I will audiotape the interview.

After analysis of the initial interviews, you will be contacted for a follow-up interview of up to ½ hour in length. All persons initially interviewed will be contacted for a one-time follow-up interview within two months of the initial interview. This interview will also be in person by the principal investigator and will be recorded.

Participant's initials ____

Approval Date:

Renewal Date:

University of
Pittsburgh
Institutional Review
Board
IRB Number:

How will my eligibility for the study be determined?

University of Pittsburgh students, faculty and staff participating in the UCLID program will be eligible to participate.

What are the possible risks and discomforts of this study?

As in all research studies there is a risk of a breach of confidentiality. During study participation, the student, faculty, or staff will be identified in data records, by their stated profession only. The participant will be asked for permission to audiotape and requests to turn off the tape recorder will be respected. Audiotapes will be kept in a secure place and destroyed after the study is completed.

Will I benefit from taking part in this study?

You will receive no direct benefit from participating in this study. However, you may learn more about yourself as a result of completing the interviews.

Are there any costs to me if I participate in this study?

There are no costs to you for participating in this study.How much will I be paid if I complete this study?

There is no pay for participating in this study.

Will anyone know that I am taking part in this study?

All records pertaining to your involvement in this study are kept strictly confidential (private) and any data that includes your identity will be stored in locked files at all times. A number will be assigned to your information and your name will be separated from this coded information during storage. At the end of this study, any records that personally identify you will remain stored in locked files and will be kept for a minimum of five years. Your identity will not be revealed in any description or publications of this research. Although we will audiotape some interviews, we will not refer to you by name during the taping, and will retain the tapes only long enough to transcribe them; we will then destroy them.

Participant's initials _____

Approval Date:

Renewal Date:

University of Pittsburgh

Institutional Review
Board
IRB Number:

In unusual cases, your research records may be released in response to an order from a court of law. It is also possible that authorized representatives from the University of Pittsburgh Research Conduct and Compliance Office, the University of Pittsburgh IRB may review your data for the purpose of monitoring the conduct of this study.

Is my participation in this study voluntary?

Yes! Your participation in this study is completely voluntary. You may refuse to take part in it, or you may stop participating at any time, even after signing this form. Your decision will not affect your relationship with the University of Pittsburgh, UCLID, or the University of Pittsburgh Medical Center. You may be withdrawn from the study at any time by the investigators: for example, if you were subsequently found to meet any of the study criteria that would exclude you from participating.

How can I get more information about this study? If you have any further questions about this research study, you may contact the investigators listed at the beginning of this consent form. If you have any questions about your rights as a research subject, please contact the Human Subjects Protection Advocate at the University of Pittsburgh IRB Office, 1.866.212.2668.

****

Participant's initials _____

Subject Certification

- I have read the consent form for this study and any questions I had, including explanation of all terminology, have been answered to my satisfaction.
- I understand that I am encouraged to ask questions about any aspect of this research study during the course of this study, and that those questions will be answered by the researchers listed on the first page of this form.
- I understand that it is important that I not withhold any information regarding my past history.
- I understand that some interviews may be audiotaped.
  I agree ____ I do not agree ____ to the audiotaping
- I understand that my participation in this study is voluntary and that I am free to refuse to participate or to withdraw my consent and discontinue my participation in this study at any time without affecting my future care at this institution.
- I agree to participate in this study.
- I will receive a copy of this consent form.

_____ _____

Participant's Signature Date

Approval Date:

Renewal Date:

University of Pittsburgh
Institutional Review
Board
IRB Number:

CERTIFICATION of INFORMED CONSENT

I certify that I have explained the nature and purpose of this research study to the above-named individual(s), and I have discussed the potential benefits and possible risks of study

participation. Any questions the individual(s) have about this study have been answered, and we will always be available to address future questions, concerns or complaints as they arise. I further certify that no research component of this protocol was begun until after this consent form was signed.

_____ _____

Printed Name of Person Obtaining Consent Role in Research Study

_____ _____

Signature of Person Obtaining Consent Date

.

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