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A Relational Diffusion Network Study Of Synchronous And Asynchronous Internet-based Faculty's Personal Network Exposure Models Related to Discussions about Teaching Online

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A RELATIONAL DIFFUSION NETWORK STUDY OF SYNCHRONOUS AND
ASYNCHRONOUS INTERNET-BASED FACULTY'S PERSONAL NETWORK
EXPOSURE MODELS RELATED TO DISCUSSIONS ABOUT TEACHING ONLINE

by

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ABSTRACT

For many faculty, teaching online represents a new instructional delivery method, requiring the development of new teaching skills. This exploratory investigation builds upon Rogers' (2003) *Diffusion of Innovations* theory and communication channels to describe the influence of faculty discussions on their perceptions and decisions about teaching and learning. A sequential explanatory mixed-methods research design, using both sociometric and phenomenological methodologies, guided the exploration of faculty personal network exposure models and social learning opportunities. The study utilized online survey and open-ended interview instruments for the investigation.

Faculty from several colleges at the University of Central Florida voluntarily completed the survey instrument identifying with whom, how, and why they discuss teaching online, including the influence of these discussions. In-depth interviews offered internal descriptions of their personal networks. Survey results established baseline data for demographic and future comparisons and identified concerns, issues, and trends unique to synchronous and asynchronous Internet-based faculty development and support needs. Phenomenological data produced the emergent categories and themes used to investigate and explain faculty's communication channel usage and social learning experiences.

Similarities between diffusion and knowledge research findings and participants reflected more conformity than anticipated. Differences in communication channel and learning style preferences and usage and faculty's 24/7 work life needs, present challenges to administrators and educators responsible for providing development and support systems.

This dissertation is dedicated to Gary Johnson

for all his love and support throughout my life-long learning adventures.

You're still the one.

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LIST OF ACRONYMS/ABBREVIATIONS

24/7	Twenty-four hours a day, seven days per week
CAS	College of Arts and Sciences
CDWS	Course Development and Web Services
DoI	Diffusion of Innovations
E Courses	Courses enhanced with media/electronic mail
FCTL	Faculty Center for Teaching and Learning
FM	Form Manager
IDL	IDL6543
IRB	Institute Review Board
M Courses	Courses meeting both in the classroom and online
RITE	Research Initiative for Teaching Effectiveness
UCF	University of Central Florida
UCFIRB	University of Central Florida Institute Review Board
W Courses	Asynchronous, Internet-based courses

CHAPTER ONE: INTRODUCTION

Background for the Study

Innovations in telecommunications and home computing technologies present opportunities for expanding college and university curriculum and physical boundaries (Rockwell, Schauer, Fritz, & Marx, 2000). More than 90% of all American two and four-year public colleges and universities currently offer Internet-based courses (Waits & Lewis, 2003). Internet-based, or online, courses describe classes taught using computer and Internet delivery and interface methods (Sorg & Darling, 2000). Of these institutions, 88% plan to increase the number of online courses using asynchronous computer-based instruction and 62% plan to use asynchronous Internet-based instruction as a primary mode of instructional delivery (Waits & Lewis, 2003). As online curriculum expands, college and university administrators expect faculty to develop competency in instructional design and technology to create, administer, and maintain such courses and programs (Jung, 2001; Waits & Lewis, 2003).

Online course instruction differs from classroom instruction primarily due to the technology interface and its impact on interaction and learning, necessitating different instructional methods when designing online courses (Bermudez & Hirumi, 2000; Harmon & Hirumi, 1996; Hirumi, 2002; Moore, 2001; Picciano, 2001; Pyle & Dziuban, 2001). For many faculty, the technical knowledge and skills required to deliver desired instructional methods, stimulating the interaction and learning critical to attaining instructional outcomes, represents new ideas, practices, and perceptions about teaching and learning (Bronack & Riedl, 1998; Cuban, 2001; Harmon & Hirumi, 1996; Hirumi &

Bermudez, 1996; Jung, 2001; Moore, 1989, 1993, 2001; Moore & Kearsley, 1996; Pyle & Dziuban, 2001).

According to Rogers' (2003) *Diffusion Of Innovations* (DoI), most individuals communicate with members of their social system when challenged to learn new ideas, objects, or practices, called innovations. A group of individuals related through proximity and social characteristics comprises a social system or network (Rogers, 2003). As members of a social system become knowledgeable about a new idea, they engage in communal problem-solving to understand the innovation, make appropriate decisions, and achieve a common decision (Rogers, 2003; Valente, 1999). Rogers (2003, pp. 168-218) refers to this social system interaction and communal problem-solving as the innovation-decision process. As members of the social system communally transition through the innovation-decision process, social learning occurs (Rogers, 2003).

For faculty learning about new instructional methods to teach online courses successfully, the diffusion of innovations theory suggests they would communicate with other faculty within their educational social system experiencing similar new, unfamiliar teaching strategies (Rogers, 2003). To understand faculty communication regarding learning about new online teaching ideas, the researcher studied the social system of synchronous and asynchronous Internet-based faculty (hereinafter called faculty) at one Florida state university. The purpose was to analyze faculty's personal network exposure by discovering with whom, how, and why they discuss, and how discussions about teaching online influenced faculty perceptions and decisions about teaching and learning.

In the study, personal networks describe "the pattern of friendship, advice, communication, or support that exists among members of a social system" (Valente,

1999, p. 31). "Personal network exposure is the degree an individual is exposed to an innovation through his or her personal network" (Valente, 1999, p. 43). Discussion refers to personal communications and interactions of individuals regardless of method (i.e., face-to-face, electronic, telephone, etc.). Teaching online describes all activities and tasks required to teach a synchronous or asynchronous Internet-based course, including but not limited to, developing course content, managing and facilitating course activities, and using technology tools (such as word processing, course management systems, e-mail, chat, etc.) (Palloff & Pratt, 1999).

Diffusion research (Rogers, 2003; Valente, 1999) suggests understanding by whom and how information is communicated enables the researcher to describe how new ideas are discovered and dispersed among members of a group. According to Rockwell, Schauer, Fritz, and Marx, (2000, p. 7), faculty can successfully teach online courses only if college and university administrators understand "the wants, needs, interests, and aspirations of the faculty so they can help faculty develop distance learning educational models and techniques." Identifying how a group of faculty members discusses new ideas about teaching online can aid educators and administrators in understanding faculty development and support needs and preferences (Jacobsen, 1998b). Through improved understanding, educators and administrators can design and implement more effective development and support strategies (Rockwell et al., 2000).

In a meta-analysis of distance education-related publications and Web sites, researchers found online faculty development and support reduced frustration and provided positive incentives to teach online (Dahl, 2004). Providing scalable and continuous online faculty development and support when "demonstrable economic or

intellectual payoff" (Hawkins, 1999, p. 4) is not readily measurable is the challenge facing higher education administrators and educators in institutions with expanding online initiatives (Rockwell et al., 2000).

<div align="center">Statement of the Problem</div>

To create scalable and sustainable faculty support, some higher education institutions provide professional development programs which facilitate the creation of communities of practice or learning communities among faculty (Epper, 2001; Hartman & Truman-Davis, 2001). Communities of practice (CoP) and learning communities refer to groups of individuals joined in common learning objectives (Lave & Wenger, 1991; Palloff & Pratt, 1999).

Through informal conversations and networking activities focused on common goals, individuals within the communities of practice or learning communities transfer tacit knowledge, resulting in social learning (Ardichvili, Page, & Wentling, 2003; Lave & Wenger, 1991; Tu & Corry, 2002). Tacit knowledge represents an individual's personal knowledge gained through experience (Tschannen-Moran & Nestor-Baker, 2004). Generally, capturing and transferring tacit knowledge is difficult due to how interconnected the knowledge is to an individual's personal attributes and actions (Tschannen-Moran & Nestor-Baker, 2004). However, communities of practice and learning communities stimulate opportunities for tacit knowledge transfer (Argote, Ingram, Levine, & Moreland, 2000; Lave & Wenger, 1991; Tu & Corry, 2002). Formation of communities of practice and learning communities can lead to scalable and sustainable faculty development and support opportunities (Hartman & Truman-Davis, 2001).

Research relative to how faculty seek assistance supports the strategic formation of communities of practice and learning communities to meet ongoing development and support needs (Jacobsen, 1998b). Jacobsen (1998b, p. 6) asserts most faculty seek assistance with technology and teaching using technology from seven primary sources: "(1) colleagues on campus, (2) one-on-one assistance, (3) experienced graduate students, (4) media center support staff, (5) hot-line or telephone assistance, (6) outside professionals trained in technology use, and last, (7) colleagues at another institution."

As discussed in the literature review, little research exists about diffusion networks (Rogers, 2003, pp. 94-101), how, why, and with whom faculty discuss teaching online, and how those discussions influence their perceptions and decisions regarding teaching and learning. Diffusion of innovations theory offers one method for contributing to research about faculty personal networks and the exchange of online teaching ideas.

An idea, object, or practice an individual or community perceives as new represents an innovation; "new" describes innovations recently learned about by the individual or social system (Rogers, 2003). Although online instruction may not be considered new to some, for many faculty in higher education, teaching online represents new learner-centered ideas, instructional practices and strategies, and perceptions about teaching and learning (Bronack & Riedl, 1998; Cuban, 2001; Harmon & Hirumi, 1996; Hirumi & Bermudez, 1996; Jung, 2001; Moore, 1989, 1993, 2001; Moore & Kearsley, 1996; Pyle & Dziuban, 2001).

The study seeks to understand the social learning aspects of the diffusion of innovations theory in regard to faculty discussions about teaching online (Rogers, 2003,

pp. 341-342). According to Rogers (2003, p. 341), Bandura's social cognitive learning

theory (1977) describes the type of learning occurring in the diffusion of innovations

theory by looking "outside of the individual at a specific type of information exchange

with others." Social learning explains the influence of social networks and interaction on

processes of individual learning and behavioral change in the diffusion of innovations

theory. Through a shared behavioral focus, both theories describe learning among social

system members. According to both theories, cognitive processes and decision-making

skills are necessary for learning and behavioral change to occur.

Although the learning processes described in the two theories are not identical,

they are complementary. Rogers recognizes individuals decide to adopt or reject an

innovation based on the influence of their personal networks; Bandura (1977) theorizes

independent decision-making enables processes of learning to result in adoption,

adaptation, or rejection of new concepts and knowledge (Rogers, 2003, pp. 341-342).

Purpose of the Study

Based on the diffusion of innovations theory and research, especially the social

learning aspects (Rogers, 2003; Valente & Davis, 1999), the study attempted to

contribute to the knowledge base by exploring discussions about teaching online among

faculty at the University of Central Florida to understand how these discussions

influenced faculty perceptions and decisions about teaching and learning. Through an

investigation of participants' personal network experiences and innovation-decision

processes, the researcher discovered the relationship between faculty discussions about

teaching online and social learning.

Diffusion theory explains how new ideas, objects, and practices disperse among communities and individuals, resulting in adoption or rejection. Four main elements comprise the diffusion of innovations theory: (1) the innovation, (2) communication channels, (3) time, and (4) a social system. "These elements are identifiable in every diffusion research study, and in every diffusion campaign or program" (Rogers, 2003, p. 11). Diffusion of innovations is the study of communication processes within certain channels used over time to achieve understanding or reduce uncertainty regarding a new idea, object, or practice among individuals and organizations (Rogers, 2003; Valente, 1999).

Relational diffusion network research represents one method for analyzing communication processes within a social system regarding an innovation. Analyzing relational diffusion within personal networks enables the researcher to understand social system and individual changes resulting from communications among members and their subsequent innovation-decision processes about new ideas. These changes can be perceived as evidence of the social learning aspects of the diffusion of innovations theory (Rogers, 2003, pp. 341 - 342).

When describing the role of personal networks in diffusion theory, Valente (1999, p. 31) hypothesizes "direct contacts between individuals influence the spread of an innovation." The four classifications for relational diffusion networks are: (1) opinion leadership, (2) group membership, (3) personal network density, and (4) personal network exposure. Personal network exposure identifies "the degree an individual is exposed to an innovation through his or her personal network" (Valente, 1999, p. 43).

Diffusion research found a positive correlation between personal networks and an individual's perceptions or decisions regarding new ideas (Rogers, 2003; Valente, 1999).

Communication channels link members of a social system, facilitating development of personal networks of advice, communication, friendship, and support (Rogers, 2003; Valente & Davis, 1999). Analyzing communication channels leads to identification of personal and social networks and understanding the amount of exposure to new ideas individuals experience within those networks (Rogers, 2003; Valente, 1999).

Internal and external elements can influence the accessibility and effectiveness of communication channels, promoting or inhibiting an individual's potential for exposure (Rogers, 2003; Valente, 1999). Rogers (2003) describes six internal and external elements which can promote or inhibit an individual's exposure to communication channels: (1) prior conditions, (2) characteristics of the decision-making unit, (3) perceived characteristics of the innovation, (4) effectiveness of the communication media for the type of message, (5) proximity, and (6) similarities and differences between various communicators' attributes, including beliefs, personal and social networks, social status, and values.

Understanding how these elements influence the individual, his/her social system, and their communication methods, is critical to understanding how people learn and make decisions about new ideas (Rogers, 2003). Discovering individual learning and innovation-decision processes enables identification of social learning activities and communities of practice or learning communities (Lave & Wenger, 1991; Palloff & Pratt, 1999).

Some higher education institutions encourage formation of learning communities through professional development programs for faculty (Epper & Bates, 2001). In 1996, administration at UCF created a faculty development program "to facilitate a learning community among faculty committed to develop online courses" (Hartman & Truman-Davis, 2001, p. 47). This approach represented one element of UCF's online initiative to address faculty members' initial and ongoing development and support needs (Hartman & Truman-Davis, 2001).

The purpose of the study was to discover the personal network exposure experiences regarding discussions about teaching online of some faculty at the University of Central Florida (UCF) and the relationship of these experiences to their perceptions and decisions relative to teaching and learning. Faculty who completed UCF's professional development program were queried about with whom, how, and why they discuss teaching online and how these discussions influence their perceptions and decisions about teaching and learning. Examination of personal networks allowed identification of characteristics and experiences influencing the formation of social networks, representing communities of practice or learning communities.

<div align="center">Delimitations and Limitations of the Study</div>

The purpose of identifying the delimitations and limitations of a research study is to establish the study's boundaries, exceptions, qualifications, and reservations (Creswell, 2003; Meyer, 2004). Several parameters define the scope and limitations of the study: (1) population, (2) methodology decisions, (3) role of the researcher, (4) ethical issues of the study, and (5) general assumptions and limitations.

Population

In fall 2004, UCF employed 1,186 full-time faculty and 330 part-time faculty. Of the full-time faculty, 836 possess doctoral degrees. The student to faculty ratio is 18.7 to 1 (University of Central Florida Office of Institutional Research, 2004).

Tenured faculty represent 42% of the total population (University of Central Florida Office of Institutional Research, 2004). Faculty on track, however non-tenured, represent 24% of the full-time faculty (University of Central Florida Office of Institutional Research, 2004). Those faculty without tenure and not on track represent 34% of the full-time faculty (University of Central Florida Office of Institutional Research, 2004).

To teach online courses at UCF, most part- or full-time faculty must complete the university's online teaching professional development program, IDL6543 (Hartman & Truman-Davis, 2001). The identified population represented faculty who completed the university's online teaching professional development course and taught either synchronous (mixed-method reduced seat time or blended [M]) or asynchronous (fully online [W]) Internet-based courses. UCF's Center for Distributed Learning's Executive Information System provided the data necessary to identify different faculty populations. Both synchronous and asynchronous Internet-based faculty were identified for the study because:

- The entire population completed the faculty professional development course and taught online, illustrating characteristics and attributes of a social network due to shared common knowledge, skills, and abilities regarding using computer-mediated technology to teach online.

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- One of the goals of the faculty professional development course is to foster a learning community, providing the chance to discover social learning experiences within a fostered environment.

- Individual and shared experiences designing, developing, and implementing online courses facilitates insights into unique individual innovation-decision and learning processes.

When the study began, 487 faculty and administrative staff had completed the professional development program (Center for Distributed Learning, 2005). Seventy-nine administrative staff completing IDL6543 did not meet the sample criteria, removing them from the population identified.

The pilot test population consisted of 159 faculty who completed the university's professional development course between 1996 and January 2000 and taught at least two synchronous (M) or asynchronous Internet-based (W) courses. The research study population consisted of 249 faculty who completed the university's professional development program after January 2000 and taught at least two M or W courses.

Through a volunteer sampling strategy (Gall, Gall, & Borg, 2003), a representative number of the initial 159 and 249 faculty chose to participate in their respective studies. The research design and methodology for both studies appears in Chapter Three.

The perceptions of a very contained group of participants create a limitation (Gall et al., 2003). While similarities and differences between the study's findings and diffusion research literature are presented in Chapter 5, the experiences described in the

study are unique to participants, based upon individual and shared discussions and experiences, therefore not generalizable to all faculty (Gall et al., 2003).

As described previously, numerous internal and external factors can influence faculty perceptions about teaching online. Attempts to replicate results described in the study may not produce the same outcomes due to the influence of these factors; therefore, researchers should adjust the methodology as necessary for their population and educational social systems. (Gall et al., 2003; Rogers, 2003).

Methodology

The researcher identified three primary deficiencies weakening the diffusion research model: (1) most studies focus on the innovativeness of members within a social network, (2) most approaches use institutionalized quantitative methods, and (3) lack of research about faculty diffusion of teaching online ideas, objects and practices. Rogers' (2003) assertion 58% of diffusion research focuses on the innovativeness of social network members, while less than 1% focuses on diffusion networks, identifies another opportunity for advancing diffusion network research.

Meyer theorizes the weakness of diffusion research methods resides in the institutionalized nature of most of the approaches used. Most diffusion research studies focus on "(1) quantitative data, (2) concerning a single innovation, (3) collected from adopters, (4) at a single point in time, (5) after widespread diffusion had already taken place" (Meyer, 2004, p. 59). Focusing the study on diffusion and communication networks rather than adoption, the researcher posited, addresses the weakness concerning a single innovation, as well as the timeliness of the diffusion. Unfortunately, time

constraints necessitate collecting data during one semester or single point in time, so that weakness identified by Meyer (2004) was not addressed in the study.

Based on Meyer's (2004) criticism about the quantitative nature of most diffusion research, as well as the researcher's experience with quantitative and qualitative research methods, the study employed a mixed-method approach. Sociometric measures and personal network exposure models guided quantitative research design aspects. Phenomenological research methodology aided in the design of qualitative aspects.

The researcher believed a mixed-method approach also addressed each of Meyer's (2004) criticisms of diffusion research. The mixed-methods research approach provided both quantitative and qualitative data (Creswell, 2003). The focus of the study is not on a single innovation, rather how faculty learn about new ideas for teaching and learning. Although information to identify their personal networks was collected from adopters, the researcher posited such information cannot be collected effectively without asking the participants. Due to the timelines, data was collected at a single point in time; however, the focus was not on innovativeness or adoption, but the diffusion and network influencing these communications.

To identify with whom, how, and why faculty discuss teaching online and how those discussions influence their perceptions and decisions about teaching and learning, the researcher chose a personal network exposure diffusion research method (Valente, 1999). Personal network exposure research measures how an individual's personal network influences his or her innovation-decisions (Valente, 1999). Through a personal network exposure research approach (Valente, 1999), the researcher designed sociometric

data collection instruments to generate the desired relational diffusion network models and address the study's research questions.

Rogers (2003) promotes the use of both survey and interview data collection instruments, or mixed-methods research strategy, for gathering holistic data about social system interactions, as well as determining causality based on those interactions. Researchers believe one of the strengths of a mixed-methods study is perceived biases of a quantitative or qualitative approach are cancelled or neutralized by the biases of the other approach (Creswell, 2003). The order of data collection and analysis for the study was critical to identify and analyze accurately faculty personal networks (Valente, 1999). Collecting, analyzing, and identifying personal networks was necessary to identify the population from whom the purposeful sample for the phenomenological data was collected (Patton, 2002). The qualitative research design focused on explaining and interpreting the faculty personal networks developed based on quantitative data (Creswell, 2003). The researcher employed a sequential explanatory mixed-method research design (Creswell, 2003), using quantitative methodology, supplemented by qualitative methodology, to identify some faculty's personal network exposure experiences and the influences of these experiences on their perceptions and decisions about teaching and learning.

Diffusion research methodology employs eight main dependent variables: (1) innovativeness, (2) communication channel use, (3) earliness of knowing about an innovation by members of a social system, (4) opinion leadership in diffusing innovation, (5) rate of adoption of innovations in different social systems, (6) rate of adoption of different innovations in a social system, (7) diffusion networks, and (8) consequences of

an innovation. Although a variety of diffusion research processes have been used to analyze these eight variables, Rogers (2003) describes five of the most commonly applied methodologies as: (1) tracer studies, (2) variance research and process research, (3) postdiction and prediction research, (4) method of adopter categorization, and (5) opinion leadership and diffusion network links research. Diffusion network links research focuses on the study of social networks and the diffusion of new ideas. For this reason, prior diffusion network links research influenced the design of the study.

Rogers (2003) also identifies four main research methods for measuring opinion leadership and diffusion network links: (1) sociometric, (2) informants' ratings, (3) self-designating techniques, and (4) observations. Previous diffusion research studies applying two or more of these research methods to the same participants discovered a positive correlation between the measures, indicating the validity of each method. Generally, the type of questions asked differentiates the four research methods. Studies designed to identify whom a social system member asks for advice or information about an innovation generally apply sociometric measurement methods, facilitating the capture and analysis of data identifying relationships within the social system. Through these relationships, an understanding of how members within a social system share ideas and innovations can be developed (Rogers, 2003).

Of the four diffusion network research methods, sociometric studies have the highest validity because they measure participants' perceptions (Rogers, 2003). Additional advantages of this method over other diffusion network research techniques include adaptability of sociometric measures to a wide variety of issues and environments

and ease of instrument administration (Rogers, 2003). Although sociometric instruments generally are easy to administer, analysis of the data can be complex (Rogers, 2003).

Sociometric research methods can be further classified and limited based on what Valente (1999) describes as the four types of relational diffusion network models: (1) opinion leadership, (2) group membership, (3) personal network density, and (4) personal network exposure. Personal network exposure models measure how an individual's personal network influences innovation-decisions (Valente, 1999). This research approach focuses on the amount of exposure to innovations an individual's personal network provides and the influence of that exposure on the rate of adoption (Valente, 1999). The wider the adoption within an individual's personal network, the more probable the individual perceives the innovation as compatible with social norms and values, therefore adoption is the norm (Valente, 1999). This model enables the researcher not only to measure the influence of members within the individual's immediate personal network, but also those not as closely connected to the personal network (Valente, 1999).

The researcher determined sociometric instruments, specifically personal network exposure research methods, represented an effective and efficient means for gathering the type of data needed to answer the primary research questions of the study. A personal network exposure research approach generated the desired relational diffusion network model data (see Appendix J) which aided in the discovery of social networks among faculty (see Appendix K).

The probability of pro-innovation bias was reduced by focusing the study on communication networks and relationships between individuals of a social system

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(Rogers, 2003). Pro-innovation bias describes the influence of a researcher's opinions about the rate of adoption among a social system being studied. Also, not including the rate of adoption as one of the study's variables reduced the probability of individual-blame bias and the recall problem. Individual-blame bias attributes an individual's problems completely to the individual without consideration of social system factors influencing the rate of adoption. Recall problem describes the difficulties incurred when data depends on individuals' memory of a past event, such as when an innovation was adopted and the decisions made (Rogers, 2003).

Research methodologies and variables were chosen based on careful analysis and consideration of the study's purpose. Selection of different research methodologies or emphasis on different variables or aspects of the diffusion of innovations theory can result in different findings or interpretations (Rogers, 2003). Researchers should consider the appropriateness of the study's research methodology and variables when designing similar studies.

Role of the Researcher

The researcher's role in the study was as a data collector, (1) collecting statistical data from participants regarding their discussions about teaching online and how those discussions influenced their perceptions and decisions regarding teaching and learning and (2) experiencing and capturing the phenomenon by having participants comprehensively describe their discussions about teaching online and how those discussions influenced their perceptions and decisions regarding teaching and learning (Moustakas, 1994). A proponent of online teaching and learning, the researcher acknowledges not all her online course learning experiences were positive. However, the

less than positive online course experiences did not dampen her bias, stemming from observations of the evolution of information technology in business environments. The researcher hypothesizes online teaching and learning is still in its infancy. As more faculty learn about teaching online and focus on exploring how that environment enhances their teaching and communications, online learning and interaction also will expand and enhance student learning.

To minimize the influence of her positive bias on data collection and analysis, the researcher employed open-ended interview questions and did not guide participants in their responses to facilitate of their personal descriptions. In addition, participants' experiences were analyzed with as little personal interpretation as much as possible.

Ethical Issues

Moustakas (1994) stresses the importance of addressing anticipated ethical considerations and issues in phenomenological studies. The researcher attempted to consider ethical issues throughout planning and implementation of the study by being aware and considerate of participants' rights, needs, values, and requests and utilizing unobtrusive inquiry methods when gathering their perceptions of discussions about teaching online. A variety of safeguards to protect participants' rights also were employed: (1) articulating understandable research objectives with a clear description of data usage, (2) obtaining written authorization to include them in the study, (3) informing them about data collection methods, (4) allowing them access to verbatim transcriptions, synthesis, and findings, (5) considering their rights, needs, values, and requests when making data reporting decisions, and (6) leaving anonymity decisions to each participant (Moustakas, 1994).

General Assumptions and Limitations

The study does not provide specific instructions or training about how to design, create, implement, or encourage faculty to discuss teaching online or form communities of practice or learning communities. The diversity of individuals, technology, and online instructional methods employed by higher education institutions prevents the adoption of one approach to meet all situations and needs. College and university administration and educators should (1) evaluate resources in the study for potential relevance within their environments to identify those suggestions best meeting their curricular, institutional, pedagogical, and technological needs and (2) be familiar with faculty communication methods which can be employed within the constraints of their institutions.

Literature resources used in the research study were published between 1996 and 2005. This ten-year period was selected because it includes early technology diffusion and distance education research and recent studies from the expanding field of knowledge research. This period was constrained enough to exclude research conducted using older technology tools and distance education systems which would not be relevant to Internet-based courses.

Similarly, instructional methods, learning theories, and curriculum theories evolve over time, especially when implemented through technology. "Technological advances on the Internet and the World Wide Web have tended to drive online pedagogy" (Pyle & Dziuban, 2001, para 1). Over time, some of the research reviewed for the research study, as well as the study itself, may become obsolete or ineffective. As teaching online evolves, the role, use, and implications of faculty communications should be reviewed, new research conducted, and resources developed.

Significance of the Study

A study of personal network exposure experiences regarding discussions about teaching online of some faculty at the University of Central Florida (UCF) and the relationship of these experiences to their perceptions and decisions relative to teaching and learning is important for several reasons. First, understanding by whom, how, and why new ideas are discovered and diffused among a social system can lead to improved administrative strategies regarding cost effective professional development and support solutions (Hartman & Truman-Davis, 2001; Palloff & Pratt, 1999). Critical to understanding how members of a social system learn and make decisions about new ideas is understanding the characteristics of the social system and their communication processes (Rogers, 2003).

Second, effectiveness of communication with members of a social system can be enhanced if the administration understands social network characteristics and diffusion methods (Rogers, 2003; Valente & Davis, 1999). Understanding faculty's communications channels enables educators and administrators to design communities of practice or learning communities tailored to existing social networks, potentially diffusing ideas more rapidly and becoming self-sustaining more quickly (Lave & Wenger, 1991; Palloff & Pratt, 1999).

Third, "social networks and knowledge webs enable people to connect with the right people at the right time and to build and share a body of information" (NMC: The New Media Consortium & National Learning Infrastructure Initiative, 2005, p. 18). Assuming Rogers' (2003) assertion individuals generally rely on the experiences of others when processing innovation-decisions, faculty adoption of new online instructional

methods requires identifying and establishing how existing discussions occur about technology and teaching and learning online. Discovering existing social networks based on these discussions can assist educators and administrators to recognize established faculty communities of practice or learning communities, encouraging connections among faculty at opportune times to build a shared a body of knowledge.

Research Questions

Based on the conceptual framework of the diffusion of innovations theory and innovation-decision process, the researcher identified four research questions to guide the study:

1. What personal networks do synchronous and asynchronous Internet-based faculty use to discuss teaching online?

2. What communication channels do synchronous and asynchronous Internet-based faculty use to discuss teaching online and how do they use them?

3. What reasons do synchronous and asynchronous Internet-based faculty provide for why they do or do not discuss teaching online?

4. How have discussions about teaching online among synchronous and asynchronous Internet-based faculty influenced their perceptions and decisions about teaching and learning?

Summary

Teaching online is a new experience for many higher education faculty (Bronack & Riedl, 1998; Cuban, 2001; Harmon & Hirumi, 1996; Hirumi & Bermudez, 1996; Jung, 2001; Moore, 1989, 1993, 2001; Moore & Kearsley, 1996; Pyle & Dziuban, 2001). Technological innovations continue to evolve and drive changes in education (Cuban,

2001). Learning about such innovations can stimulate synchronous and asynchronous Internet-based faculty's discussions relative to understanding how best to exploit technology when creating and delivering online instruction (Rogers, 2003). The diffusion of innovations theory, specifically the role of personal networks in the innovation-decision process, guided the research regarding whom, how, and why faculty discuss teaching online and how those discussions influence their perceptions and decisions about teaching and learning.

The primary format for the study applied Gall, Gall, and Borg's (2003) dissertation organization outline with a few modifications to address a sequential explanatory mixed-methods research design. Chapter 1 enhanced the primary outline by incorporating the elements of Leedy and Ormrod's (2001) qualitative proposal outline. Chapter 3 organized the research methods by applying an interactive mixed-methods design model (Maxwell & Loomis, 2003) and delineating the measures, other procedures, and time line into quantitative processes followed by qualitative (Creswell, 2003).

CHAPTER TWO: LITERATURE REVIEW

Introduction

Diffusion of Innovations (DoI) is a communications theory validated by more than

4,000 empirical research studies (Baptista, 1999; Cheng, Kao, & Lin, 2004; Cottrill,

Rogers, & Mills, 1989; Dooley, 1999; A. A. Durrington, Repman, & Valente, 2000;

Rogers, 2003; Valente & Davis, 1999; Valente & Rogers, 1995). Communications

describes an interactive process among individuals to "create and share information"

about a new idea, object, or practice (Rogers, 2003, p. 5). Through interactive

communication, individuals form a common understanding about the new idea, normally

resulting in a decision to adopt or reject the innovation (Rogers, 2003).

Rogers (2003) describes the stages an individual transitions through to evaluate

and decide whether to adopt or reject a new idea as the innovation-decision process. As

an individual gathers and processes information to decrease uncertainty about an

innovation, Rogers (2003, p. 170) posits they progress through five primary stages: (1)

knowledge, (2) persuasion, (3) decision, (4) implementation, and (5) confirmation (see

Figure 1).

Knowledge occurs when an individual learns of an innovation and how it works

(Rogers, 2003). Rogers (2003) theorizes the knowledge stage stimulates social learning

activities by motivating individuals to discuss their perceptions of the new idea. Through

social learning activities, individuals generally form a positive or negative attitude or

opinion of the idea, persuading them to consider adopting the innovation (Rogers, 2003).

Decisions occur when an individual participates in choosing to adopt or reject the

Prior Conditions:
1. Previous practice
2. Felt needs/problems
3. Innovativeness
4. Norms of the social systems

Communication Channels

I. Knowlege

II. Persuasion

III. Decision

IV. Implementation

V. Confirmation

Characteristics of the Decision-Making Unit:
1. Socioeconomic characteristics
2. Personality variables
3. Communication behavior

Perceived Characteristics of the Innovation:
1. Relative advantage
2. Compatibility
3. Complexity
4. Trialability
5. Observability

1. Adoption → Continued Adoption
→ Later Adoption
→ Discontinuance
2. Rejection → Continued Adoption

Figure 1: Roger's (2003, p. 170) Five Stages of the Innovation-Decision Process

innovation (Rogers, 2003). Once an individual decides to adopt and use an innovation, implementation occurs (Rogers, 2003). The feedback and reinforcement individuals and social systems receive after implementing an innovation provide confirmation of their decision (Rogers, 2003). The length of time required to complete the innovation-decision process depends upon multiple variables: quality, quantity, and value of available information and the individual's information processing characteristics and abilities (Frambach, 1993).

According to Wejnert (2002), multiple variables such as these interact within the innovation-decision process, influencing the individual's perceptions and beliefs about the new idea. Understanding how a new idea is communicated and decided upon requires studying multiple variables simultaneously within the innovation-decision process rather than focusing on one variable while ignoring the effects of others (Wejnert, 2002). Rogers (2003) classifies variables influencing the innovation-decision process into four primary categories: (1) the situation as perceived by the individual and social system, (2) the characteristics of the individual, personal network, social system, and innovation-decision, (3) the communication methods used to diffuse information about the innovation, and (4) the perceived attributes of the innovation.

Within the context of the innovation-decision process, the study focused on communication methods used by synchronous and asynchronous Internet-based faculty (faculty) to discuss teaching online. The study analyzed with whom, how, and why faculty discuss teaching online. The influence of these discussions on faculty's perceptions and decisions about teaching and learning also was explored (see Figure 2).
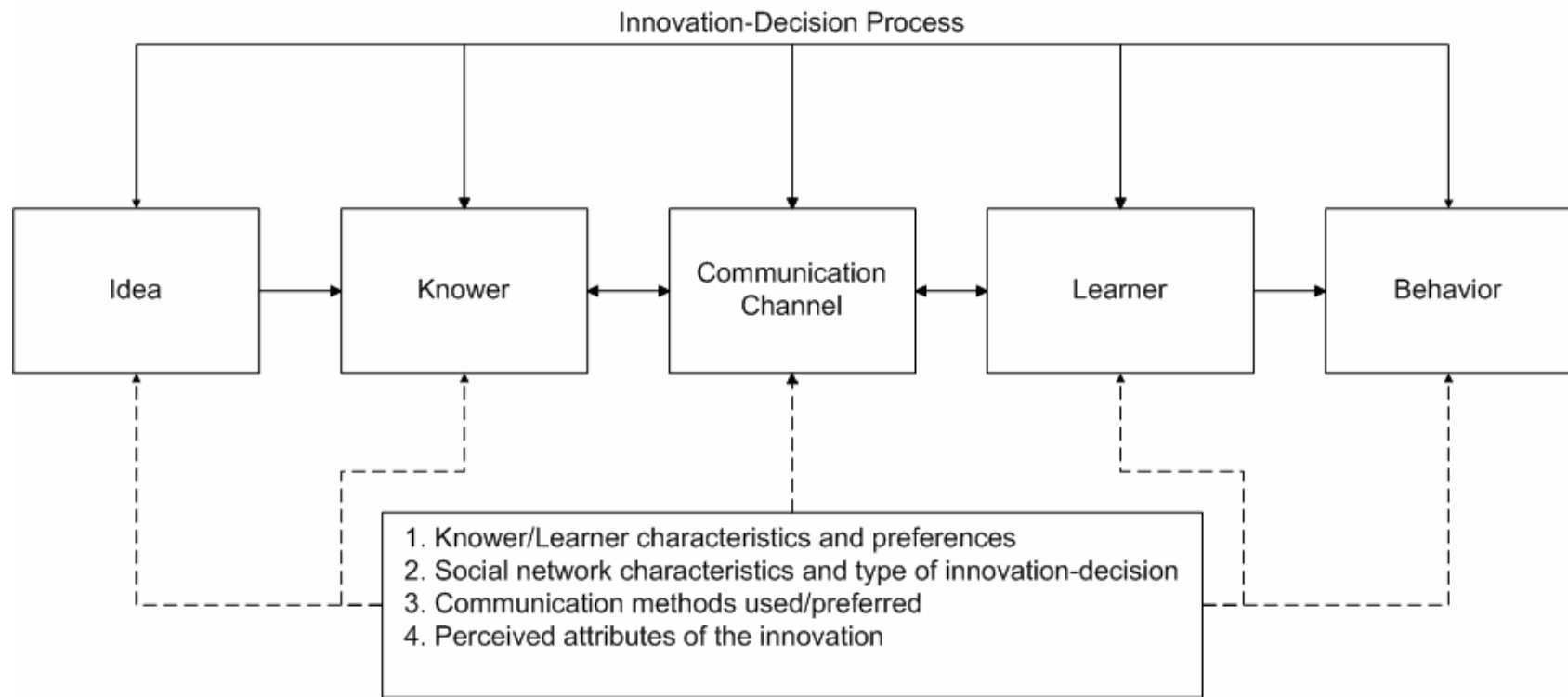
Figure 2: Study Perspective of Communication Methods and Multiple Variables Influencing the Innovation-Decision Process

Figure 2 also illustrates what knowledge research calls knowledge transfer which occurs through the communication of information about a new idea among members of a social network and the inclusion of that information into the recipient's knowledge (Darr & Kurtzberg, 2000; Davenport & Prusak, 2000).

> Knowledge is a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers (Davenport & Prusak, 2000, p. 5).

Knowledge transfer represents another form of social learning, resulting in communities of practice or learning communities (Darr & Kurtzberg, 2000). According to Lave and Wenger (1991), through informal conversations and networking activities focused on a common set of goals, individuals participate in shaping and generating social knowledge, contributing to the formation of communities of practice.

Review of Previous Research and Opinion

Very little diffusion network literature exists because less than 1% of all diffusion research studies focus on diffusion networks (Rogers, 2003). Similarly, very few diffusion research studies focus on communication within a higher educational environment due to the complexity of interdependencies between the different variables within a school (Ready, 1992; Rogers, 2003). Therefore, the literature reviewed in this chapter present a few traditional diffusion network research and innovation-decision studies in a variety of work-related environments. Three streams of research contributed to the literature search and review: (1) communication channels, (2) communicators, and (3) personal and social networks.

Communication Channels

"Who is talking to whom" tends to have the greatest influence on an individual's innovation-decision process (Godes & Mayzlin, 2004, p. 547). Communication channels describe the way information travels from one individual to another (Rogers, 2003). In the diffusion of innovations theory (Rogers, 2003), mass media and interpersonal channels are the two primary communication methods used to inform individuals of an innovation (Lundblad, 2003; Rogers, 2003). The Bass forecasting model identifies the two communication channels as mass media and word-of-mouth (Bass, 1969).

Mass media channels represent the transmission of information through communication devices, such as magazines, newspapers, radio, and television. Diffusion of innovations research found the use of mass media channels is best for reaching large audiences, creating knowledge and spreading information, and leading to changes in weakly held attitudes. Interpersonal channels describe the face-to-face process of sharing information. The personal nature of those communication channels works best when diffusing information about innovations in two-way exchanges or persuading individuals to form or change strongly held attitudes (Rogers, 2003).

Word-of-mouth (WOM) broadens the definition of interpersonal communication channels to include both face-to-face and written sharing of information (Godes & Mayzlin, 2004; Lee, Lee, & Schumann, 2002; Minsky & Marin, 1999). WOM communication generally results in higher information credibility, increasing individual knowledge and awareness and influencing individual preferences and adoption rates (Godes & Mayzlin, 2004). Selection and use of communication channels depends on the

type of message and the individual's communication channel preferences (Lee et al., 2002; Minsky & Marin, 1999; Rogers, 2003).

"Type of message" refers to the degree of interaction between sender and receiver necessary for the communication to be most effectively disperse (Lee et al., 2002; Rogers, 2003). Media richness theory describes different degrees of interaction on a continuum from rich to lean (Lee et al., 2002). Face-to-face communication is richer than written communication since conversation involves visual signals and benefits from the physical presence of individuals communicating. According to media richness theory, communication channels should be selected based on the degree of interaction required for effective dispersion of the message due to the influence of the channel on the individual's perceived usefulness and value of the information (Lee et al., 2002). The more useful and valuable an individual perceives information, the greater the likelihood the information will influence the individual (Lee et al., 2002).

Individual preference also influences selection and use of communication channels (Godes & Mayzlin, 2004; Lee et al., 2002; Minsky & Marin, 1999; Rogers, 2003). According to Rogers, many people prefer interpersonal communication channels as information sources about new ideas. Although Rogers narrowly defines interpersonal communication channels as face-to-face interactions, other researchers include written conversations between two or more individuals within that definition (Godes & Mayzlin, 2004; Lee et al., 2002; Minsky & Marin, 1999). As a means of interpersonal communication, the usefulness and value of written communication may be perceived differently than face-to-face communication (Lee et al., 2002). The one-way direction of written information relies on the receiver's ability to comprehend the message (Lee et al.,

2002). Face-to-face communication allows two or more individuals to synchronously exchange information in a richer manner, resulting in greater persuasion and creation of a common understanding (Lee et al., 2002).

Godes & Mayzlin (2004) further enhance the definition of written interpersonal communication by including in their explanation of word-of-mouth electronic communication methods, such as chat, discussions, electronic mail (e-mail), or other online public postings. Considering the ubiquitousness of electronic communication devices within most organizations and many American homes, eliminating such discussion enablers when defining interpersonal communication channels ignores the research value added by studying these types of personal interactions (Minsky & Marin, 1999).

Although electronic communication devices aid in facilitating time and space distance communications, research found word-of-mouth communication among individuals within close physical proximity, such as individuals living together, significantly influenced preference and adoption behavior (Godes & Mayzlin, 2004). These findings regarding the correlation of close physical proximity of the individuals in WOM communications and innovation-decisions concur with other diffusion research regarding interpersonal communication channels (Rogers, 2003).

The study employed word-of-mouth (WOM), a broader definition for interpersonal communication channels, to research discussions faculty have about teaching online (Godes & Mayzlin, 2004). The literature reviewed focuses on diffusion of innovations using the interpersonal communication channels known as word-of-mouth,

including face-to-face and written, hard copy or electronic, conversations (Godes &
Mayzlin, 2004).

Communicators

Characteristics and perceptions of individuals discussing new ideas, objects, or
practices also influence an individual's selection and use of communication channels
(Rogers, 2003). Individuals looking for a solution to a sensed need or problem may
communicate differently based on prior experiences when addressing or resolving similar
needs or problems (Rogers, 2003). The values and norms of the individual and social
network also influence the exchange of information about new ideas (Rogers, 2003).

Opinion leaders and change agents often communicate or model social network
values and norms to influence the communication and innovation-decision process.
Opinion leaders and change agents act as role models, promoting the desired adoption
(Rogers, 2003). DoI research findings indicate a positive correlation between opinion
leaders and "rapid and sustained behavior change" (Valente & Davis, 1999, p. 57).
Frequently, change agents possess specialized expertise or knowledge deemed useful for
the change management process (Rogers, 2003).

Rogers (2003) further classifies individuals, called adopters, based on five
characteristics regarding their inclination to adopt new ideas, objects, or practices: (1)
innovators, (2) early adopters, (3) early majority, (4) late majority, and (5) laggards.
Innovators are depicted as adventurous and willing to take risks when considering
adoption of new innovations. Early adopters are not as adventurous as innovators,
however are willing to take more risk about adopting innovations than the average
individual within the community. Early majority individuals still decide to adopt before

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the majority of community members, however, after the innovators and early adopters (Rogers, 2003). Conversely, the late majority choose to adopt after the average individual within the community, and laggards are the last members of a community choosing to adopt an innovation (Gallaher & Wentling, 2004).

An adopter's perception of his/her role in the innovation-decision process also influences their selection and use of communication channels. Rogers (2003) identifies four types of innovation-decisions: (1) optional, (2) collective, (3) authority, and (4) contingent. Optional innovation-decisions describe individual choices to adopt or reject innovations made independent of other individuals within a community. Collective innovation-decisions describe community-made choices to adopt or reject an innovation. Authority innovation-decisions describe choices to adopt or reject an innovation made for the community by relatively few members possessing expertise, power, or status. Contingent innovation-decisions describe choices to adopt or reject an innovation made after a previous innovation-decision (for example, an authority innovation-decision requires adoption of a new computer system; after using the computer system, an individual finds benefits in the system, choosing to adopt the system to meet his/her independent needs) (Rogers, 2003).

Perceptions of the usefulness and value of new ideas, objects, or practices further influence an individual's decision. Rogers (2003) identifies five innovation characteristics influencing an individual's decisions: (1) relative advantage, (2) compatibility, (3) complexity, (4) trialability, (5) observability. Most individuals compare and evaluate an innovation based on existing ideas, objects, or practices. If the innovation is identified as advantageous to existing conditions, the individual or social

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system perceives the innovation as providing relative advantage. "The greater the perceived relative advantage of an innovation, the more rapid its rate of adoption" (Rogers, 2003, p. 15). Similarly, the innovation is judged based on its perceived consistency with "existing values, past experiences, and needs" of the individual (Rogers, 2003, p. 15). An innovation which does not align with existing social values and norms is unlikely to be adopted, or, if it is adopted, the rate of adoption will be slow. Conversely, greater perceived compatibility of an innovation results in higher probability of adoption and faster adoption rate (Lundblad, 2003).

Individuals also assess the ease of use and understanding required to adopt an innovation. "New ideas that are simpler to understand are adopted more rapidly than innovations that require the adopter to develop new skills and understandings" (Rogers, 2003, p. 16). One way in which they assess an innovation is by application. When individuals can test and assess an innovation prior to adoption and implementation, the probability of adoption increases and the rate of adoption is faster. "An innovation that is trialable represents less uncertainty to the individual who is considering it for adoption, as it is possible to learn by doing" (Rogers, 2003, p. 16). The visibility of the results of an innovation also influence individual perceptions of its value, encouraging communication among peers inquiring about innovation-evaluation information. In addition, a more readily observed innovation is adopted faster (Lundblad, 2003).

Characteristics and perceptions of faculty discussing teaching online represent variables simultaneously influencing the innovation-decision process with communication channels (Rogers, 2003). Communicator-related variables aided in describing the faculty

and their personal networks, but did not influence the literature review and their effect on communication channel usage and innovation-decision processes.

Diffusion Networks

Valente (1999, p. 31) posits "direct contacts between individuals influence the spread of an innovation." Selection and use of communication channels creates direct contacts between individuals and the formation of personal and social networks (Rogers, 2003; Valente, 1999). "All diffusion occurs within a social system" (Lundblad, 2003, p. 55).

Personal networks represent the communication channels individuals employ to gather knowledge, influence or be influenced, and form and confirm their decisions regarding new ideas, objects, or practices (see Appendix J) (Rogers, 2003; Valente, 1999). Valente (1999, p. 43) defines a network as

> . . . the pattern of friendship, advice, communication, or support that exists among members of a social system. . . . Networks may be constructed by asking respondents to name others with whom they communicate. Once these nominations are made, a graph of the communication structure can be drawn that indicates who communicates with whom.

Personal network members often engage in extensive communication to influence innovation-decisions (Weiner, 2003). Research indicates if a strong relationship exists between personal network members A and B, and personal network members B and C also have a strong relationship, then personal network members A and C have a strong relationship (Godes & Mayzlin, 2004). These shared relationships and interactions result in personal networks linking to form a social network with the objective of resolving a

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communal problem to achieve a common purpose (Rogers, 2003; Tosey & Gregory, 1998; Valente, 1999). Social network members influence innovation-decisions through strong relationships due to frequent interactions, relationships, and social learning opportunities within the network (Godes & Mayzlin, 2004).

The amount of exposure individuals receive through network interaction and communication patterns about innovations influences the individual's decisions about those innovations. Exposure to innovations is measured based on the connectedness or affiliation of the individual with other members of the network. According to Valente (1999, p. 43), the degree of exposure is "directly computed from the personal network by dividing the number of innovators. . . by the size of the personal network." Personal exposure increases as the innovation diffuses, eventually resulting in 100% exposure to every individual within the social network and individual perception that adoption of the innovation is the norm. "This perspective reflects the main idea of diffusion theory: that interpersonal communication with near peers about an innovation drives the diffusion process" (Rogers, 2003, p. 342).

Personal network members tend to be more homophilous, sharing similar beliefs, values, and characteristics, due to the implied close proximity required for effective interpersonal communication. among members of a network. Diffusion research found most interpersonal communication occurs among homophilous individuals due to their living, working, or socializing proximity (Rogers, 2003).

In most diffusion processes, individuals do not hold similar beliefs, values, and characteristics and are defined as heterophilous. When individuals do not share a common language or ground, ineffective communication patterns occur, causing a failure

to exchange information about the innovation and lack of diffusion. For diffusion to occur effectively, homophilous individuals must exchange information about new ideas, objects, or practices. "More effective communication occurs when two or more individuals are homophilous" (Rogers, 2003, p. 19). Therefore, the more homophilous the network members, the faster the rate of adoption (Lundblad, 2003).

Because diffusion research findings indicate most individuals evaluate and adopt an innovation based on the modeling and experiences of individuals they know who previously adopted, effective interpersonal communication requires balancing homophilous and heterophilous communication patterns. Effective interpersonal communication among heterophilous individuals results in a disequilibrium between their existing knowledge and new information about an innovation called "cognitive dissonance" (Rogers, 2003, p. 306). Once homophilous individuals achieve a shared understanding about the innovation, equilibrium returns.

Heterophilous and homophilous communication patterns also affect the dispersion rate of information. Dispersion describes the degree to which conversations about an innovation occur across a number of social networks, generally occurring more quickly among members of a social network than between members of different social networks. Interestingly, information managing to disperse between social networks normally exposes more members to the information because of the strength and credibility of the interpersonal communication channel (Godes & Mayzlin, 2004).

A relatively recent complementary research approach in the diffusion of innovations literature is knowledge research (Darr & Kurtzberg, 2000). Knowledge research describes communications about innovations as "the creation and transmission

of knowledge" (Greenhalgh et al., 2005, p. 426). Similar to diffusion theories, knowledge research suggests social network members generally engage in knowledge transfer to address a need or problem (Darr & Kurtzberg, 2000).

Within the knowledge construct, social networks influence innovation-decisions by increasing members' understanding about new ideas, objects, or practices through social interaction and establishing values, norms, trust, and perceptions about individuals with whom members interact (Erikson & Jacoby, 2003). Similar to findings in diffusion research relative to heterophilous and homophilous, knowledge research discovered more efficient knowledge transfer occurs among individuals sharing similar beliefs, values, characteristics, and trust (Darr & Kurtzberg, 2000); (Erikson & Jacoby, 2003). Transfer occurs when an individual perceived to possess a level of skill and expertise shares knowledge with another individual, who then applies the information (Darr & Kurtzberg, 2000). Knowledge research posits knowledge is created and relevant information is developed through the interaction and application of information and knowledge (Roberts, 2000).

Contrary to diffusion research, knowledge transfer research found members of social networks frequently participate simultaneously in multiple social networks when seeking information about an innovation-decision (Erikson & Jacoby, 2003). Gathering large quantities of diverse information often results in learning new information not previously possessed, increasing the reliability of information, effectiveness of knowledge transfer, and opportunity for social learning and innovation (Erikson & Jacoby, 2003; Godes & Mayzlin, 2004; Greenhalgh et al., 2005).

As described in diffusion research, social learning explains the influence of social networks and interaction on cognitive processes of learning, decision-making skills, and behavioral change. Rogers (2003) attributes the influence of Bandura's social-cognitive learning theory (1977) to this aspect of innovation-decision research.

Social learning normally represents informal learning mechanisms compared to formal learning occurring through education or training, acknowledging the importance of learning from social network members while emphasizing the significance of individual ownership and responsibility for learning (Eraut, 2004). Knowledge research generally describes social learning networks as communities of practice (Lave & Wenger, 1991) or learning communities (Tu & Corry, 2002).

According to Lave and Wenger (1991), social learning considers knowledge transfer a factor of communities of practice (CoP). Through informal conversations and networking activities focused on a common set of goals, individuals participate in shaping and generating social knowledge, contributing to the formation of communities of practice (Ardichvili et al., 2003; Lave & Wenger, 1991; Tu & Corry, 2002). Learning communities represent a similar network of individuals engaged in group activities to define and resolve issues and problems, and develop new knowledge and skills (Tu & Corry, 2002, p. 207). The definition for learning communities often focuses on five dimensions: "supportive and shared leadership, collective learning and application of learning, shared values and vision, supportive conditions, and shared personal practice" (Hord, 1998, p. 1). Similar to communities of practice, consistent collaboration among members of the social network is a primary attribute of learning communities (Hord, 1998).

Due to limited diffusion network research, the literature search expanded to include knowledge transfer in relation to individuals learning about new ideas, objects, or practices. Literature reviewed defined the characteristics and attributes of communities of practice and learning communities to understand faculty's personal and social networks and how those relationships influence their perceptions and decisions about teaching and learning.

<div align="center">Interpretive Summary of Current State of Knowledge</div>

One of the earliest diffusion network studies was reported by Katz, Menzel, and Coleman (1966) from Columbia University's Bureau of Applied Social Research. They researched the diffusion of tetracycline among select New England physicians, including their characteristics and preferences. The results clarified the character of diffusion networks and the role of opinion leaders within that network, and further confirmed diffusion is a social process in which the rate of adoption greatly increases once opinion leaders adopt an innovation and communicate their perceptions to others within the social network. Katz, Menzel, and Coleman confirmed the findings of prior diffusion of innovations studies that early adopters of tetracycline tended to be physicians with more cosmopolite characteristics, broader social network systems, and higher socioeconomic medical practices and status (Coleman et al., 1966; Rogers, 2003).

The instrument from Katz, Menzel, and Coleman's (1966) study aided in the design of instruments for the dissertation study. The characteristics and perceptions physicians identified regarding the innovation-decision process were considered in relation to faculty who voluntarily responded to online and interview instruments.

In 1965, Carlson researched diffusion network factors related to innovativeness in diffusion of modern math among Pennsylvania and West Virginia school administrators. The role of opinion leaders in social networks, perceived attributes of educational innovations and their rate of adoption, and consequences of programmed instruction also were explored. Carlson's documentation of the diffusion network through which modern math spread used sociometric data, confirming the importance of opinion leaders over innovators for influencing educators in the adoption of new instructional strategies (Rogers, 2003).

In subsequent research regarding diffusion of new math, Ready (1992) found successful diffusion and adoption of new math did not depend on the characteristics of new math, communication channels used for dissemination, rate of dissemination, or social system attributes. She attributes oversight of these discrepancies in the original research to the diffusion of innovations model's inability to accurately predict consequences of adopting new math (Ready, 1992). In response, Rogers (2003) revised the model to include consequences of innovation-decisions. Both studies aided the researcher by providing insight into complex multiple independent variables interacting within educational environments and influencing communications.

Jacobsen (1998) applied diffusion network research methods to examine the dissemination and integration of instructional technology among faculty. The study surveyed multi-disciplinary faculty members from two American universities about computer and technology personal and teaching experience and practices, general self-efficacy, incentives and barriers to change, and the use of technology. While previous

studies about adoption of technology blamed faculty for failure to adopt by resisting

change and maintaining past pedagogical and instructional beliefs, this study found:

1. More faculty are adopting technology for teaching and learning primarily because of advantages communication technologies (i.e., e-mail and Internet) offer.

2. Most faculty "get personal gratification from learning new computer knowledge and skills" (Jacobsen, 1998b, p. 5).

3. Most faculty lack the time required to integrate technology into instruction.

4. Faculty prefer to learn new computer application knowledge and skills through (ranked most to least preferred) "(1) hands-on experimenting and trouble shooting, (2) mixture of manuals and hands-on, (3) hardcopy materials, books, etc., (4) on-line manuals, (5) workshops and presentations, and, last, (6) structured courses and guidance" (Jacobsen, 1998b, p. 6).

5. For assistance with the use of technology, faculty preferred support in the following order: "(1) colleagues on campus, (2) one-on-one assistance, (3) experienced graduate students, (4) media center support staff, (5) hot-line, or telephone assistance, (6) outside professionals trained in technology use, and, last, (7) colleagues at another institution" (Jacobsen, 1998b, p. 6). Based on this response, a successful professional development program for faculty would offer "just-in-time, one-on-one access to colleagues and experienced graduate students" (Jacobsen, 1998b, p. 6).

6. Faculty also identified and ranked their sources for information about technological changes and innovations: "(1) colleagues on campus, (2) an

informal network of friends and family, (3) innovative graduate students, (4) on-line computer newsgroups and Web sites, (5) conferences, demonstrations, and workshops, (6) colleagues at another institution, (7 tie) popular computer magazines, (7 tie) popular newspapers and television, (8) hardware and software stores, vendors, suppliers, and also (9) hardware and software catalogues and brochures." "Faculty prefer to learn about changes and innovation from people they know and to which they have immediate access" (Jacobsen, 1998b, p. 6).

7. Faculty adoption patterns can be described based on three trends: "(1) the use of computers for one purpose may encourage enthusiasm for further computer use, (2) that mainstream faculty may be limited adopters because of the lack of technical support and training, and (3) that colleague supported training is a viable way to encourage diffusion of computer technologies" (Jacobsen, 1998b, p. 7).

Jacobsen's (1998b) study also influenced research design of the dissertation study. Specifically, Jacobsen's (1998b) study aided in design of the sample and instruments. Characteristics and perceptions Jacobsen's (1998b) faculty identified regarding the innovation-decision process were considered in data analysis relative to faculty who voluntarily responded to online and interview instruments.

Another study of the effects of diffusion networks on adoption of educational technology in schools found a variety of factors influence school change and faculty adoption, including: roles of administrators and teachers, concerns about the change, and stage of the individual's innovation-decision process (Dooley, 1999). Only through a

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"holistic, systemic approach," infusing all the individual factors, can change be facilitated in schools (Dooley, 1999, p. 43). Understanding faculty's perceptions regarding their role and progression within a technology innovation-decision process increased the researcher's knowledge of individual characteristics important to consider when conducting diffusion network research.

Durrington, Repman, and Valente (2000) explored faculty's rate of adoption of technological services from the diffusion network perspective of interaction and social learning. Sociometric instruments gathered the data, analyzing it using multiple regression methods. The results indicate (1) "the number of friendship network nominations received and teaching experience were predictors for time of adoption," (2) "the number of network nominations received was a negative coefficient," (3) "teaching experience was a positive coefficient," and (4) "organizational unit proximity was not associated with adoption" (A. A. Durrington et al., 2000, pp. 23-24). The study found opinion leaders were not the primary adopters of technology, and, those who did adopt technology did not contribute to the diffusion. The level of homophily among participants created a barrier to diffusion.

Elliott, Foster, and Stinson (2003) studied change in school also from the perspective of diffusion networks between educators and students. The relationship between educators' acceptance of a technological innovation and students' adoption of the innovation focused on the knowledge and persuasion aspects of diffusion networks. The study interviewed participants (both faculty and students) using Rogers' (2003) five characteristics of innovations influencing perceptions as a framework: (1) relative advantage, (2) compatibility, (3) complexity, (4) trialability, and (5) observability.

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Results found successful adoption of assistive technology by students depended upon its ability to meet educators' beliefs, values, and attributes, who then persuaded students of the technology's ability to meet their needs (Elliot et al., 2003).

In a study about creating learning communities in a Christian university, Durrington and Bacon (1999) found faculty word-of-mouth communications with students about learning communities increased student interest and participation. Similarly, Dearing, Meyer, and Kazmierczak (1994) used sociometric diffusion network research methods to study interpersonal communication techniques used by university researchers to communicate their knowledge to external constituents. The findings indicate: (1) researchers communicate to external constituents the complexity of an innovation most frequently, followed by applicability, reliability, economic advantage, and compatibility, (2) external constituents perceive the innovations to be more complex and radical, thus more conducive to division and incremental implementation, and (3) researchers communicate to external constituents primarily through evaluative sentences. By understanding how researchers communicate to external constituents about new innovations, one gains a better understanding how to minimize limitations and enhance the strengths of researchers' communication patterns (Dearing et al., 1994).

Minsky & Marin (1999) explored faculty use of e-mail as an electronic interpersonal communication channel, discovering individual attributes influence the selection and use of electronic mail. Faculty who are receptive and confident about change and innovation, possess previous successful computer experiences, and perceive e-mail as easy to learn, use, and meeting their needs have a higher probability of using e-mail. Faculty have a higher probability of using e-mail. Similarly, Oskam (1996) found

in a study about ways in which educators remain current with changes in their profession, many faculty use e-mail to network with colleagues, participate in online discussion postings, and return to school. Both studies provided further insight into data interpretation regarding the influence of individual beliefs, values, and characteristics on the selection and use of communication channels.

In a complementary study about the effects of communication channels on technological innovation adoption, Lee, Lee, and Schumann (2002) found individual preferences for communication source and mode differ among adopters. This study of consumer behavior determined mass media communication channels more frequently influence innovators, while interpersonal communication channels, specifically word-of-mouth communications, more frequently influence imitators. The authors assert conversational communication modes, more than written communication modes, influence consumers' opinions regarding the usefulness of the technological information about an innovation. They posit the richness of the conversational communication mode which enables synchronous feedback and individualized learning is critical for complex innovation-decisions, such as technology adoption. The study also found no significant difference between conversational and written communication modes when information originates from family and friends (Lee et al., 2002). This study further emphasized the significance of communication channel selection and use in relation to technological innovation adoption, as well as different perceptions based on communication sources.

Bala and Goyal (1998) found individuals most frequently use past experiences and the knowledge of their neighbors when making decisions with unknown consequences. According to Ellison and Fudenberg (1993), gaining knowledge from the

experience of neighbors illustrates social learning. Although individuals learn by observing their neighbors' decision making and resulting consequences, the network may be adequately heterogeneous to result in diverse decisions. Within homogeneous networks, the rate of technology adoption is most frequently correlated with perceived advantages of the innovation. If technology is perceived as providing little improvement to meeting a need and has a high probability of loss, the innovation may not be adopted, and if it is, it will be adopted slowly (Ellison & Fudenberg, 1993). Word-of-mouth communication channel usage illustrates one form of social learning through neighbors, therefore is relevant to the study of faculty discussions about teaching online (Bala & Goyal, 1998; Ellison & Fudenberg, 1993). Elements of various aspects of this literature contributed to the study's research design, data collection and analysis, and interpretation.

Summary

Diffusion research originates from anthropological studies conducted in the 1800s (Gallaher & Wentling, 2004). As researchers from fields other than anthropology and sociology apply diffusion theory to study a wider variety of innovations, influences from individual disciplines inspire diverse selection of variables and approaches, evolving and broadening the theory's applicability and generalizability (Rogers, 2003). The studies reviewed in this chapter illustrate the diversity of diffusion network research and the effect multiple variables have on interpretation of results.

Communication and diffusion are interactive processes resulting in social learning and supported by years of diffusion research. Due to a lack of diffusion network research and the lack of evaluation about faculty's discussions regarding teaching online, further research is warranted.

CHAPTER THREE: RESEARCH METHODOLOGY

Introduction

To gather holistic data about personal network interactions and potential social learning causality based on those interactions, the researcher employed a sequential explanatory mixed-method research design (Creswell, 2003). This design method collects and analyzes quantitative data then collects and analyzes qualitative data to explain the quantitative findings (Creswell, 2003).

Interactive Model of Research Design

An interactive model of research design aids in understanding the interconnectedness and influence of each study component (Maxwell & Loomis, 2003). The five elements of the interactive model are (1) purpose, (2) research questions, (3) conceptual framework, (4) methods, and (5) validity and reliability (Maxwell & Loomis, 2003).

Purpose

As mentioned in Chapter 1, the purpose of the study was to gather information regarding synchronous and asynchronous Internet-based faculty's (faculty) personal networks about discussing teaching online: (1) who discusses teaching online with whom, (2) how, why, where, and when they discuss teaching online, and (3) what, if any, influence discussions about teaching online have on their perceptions and decisions regarding teaching and learning. Dependent variables of the study included (1) interpersonal communication methods, (2) location, time, and frequency of communication, (3) reason for communication, and (4) influence of communication.

Research Questions

Based on the conceptual framework of Rogers' (2003) diffusion theory and innovation-decision process, four research questions guided the research design:

1. What personal networks do synchronous and asynchronous Internet-based faculty use to discuss teaching online?

2. What communication channels do synchronous and asynchronous Internet-based faculty use to discuss teaching online and how do they use them?

3. What reasons do synchronous and asynchronous Internet-based faculty provide for why they do or do not discuss teaching online?

4. How have discussions about teaching online among synchronous and asynchronous Internet-based faculty influenced their perceptions and decisions about teaching and learning?

Conceptual Framework

The study focused on the conceptual framework of the diffusion of innovations, specifically the influence of diffusion networks in the innovation-decision process and social learning (see Figure 2) (Rogers, 2003). Five major content areas comprised the study's assessment motives: (1) personal network identification, (2) communication channel usage preferences, (3) factors influencing the practice of discussing teaching online, (4) influence of discussions on teaching and learning perceptions and decisions, and (5) demographic information.

Instrument Design

The intent of the research design was to collect (1) personal network nomination data illustrating discussion patterns concerning teaching online (including demographics

of individuals, communication methods, locations, times or days, and frequency), (2)

reasons why faculty do or do not discuss teaching online, and (3) any influence these

discussions have on faculty's perceptions and decisions about teaching and learning.

Standardized survey and interview instruments meeting the study's needs were not

available. Based on the essential assessment motives, a systematic method for survey

development assisted in creating online survey and interview instruments (Crocker &

Algina, 1986; Messick, 1994b).

First, the researcher reviewed diffusion network research instruments used in

similar studies. Two diffusion studies described previously, Coleman, Katz, and Menzel

(1966) and Jacobsen (1998a), validated instruments gathering data similar to the data

needed to answer the research questions.

Coleman, Katz, and Menzel (1966, pp. 17-20) validated their instrument initially

with a pilot study of doctors in a small New England town. After analyzing the pilot

study's results, they designed and executed a full-scale study in four Midwestern cities

(Coleman et al., 1966, pp. 191-205). The authors validated study data through

comparison of composite indices, measures of association, measures of pair homogeneity

and simultaneity, and sociometric nominations (Coleman et al., 1966, pp. 207-225). Data

correlations with other studies also established the validity of Coleman, Katz, and

Menzel's study (Coleman et al., 1966).

Jacobsen (1998a, p. 41) validated her instrument using a "systematic process for

survey development," either selecting items from prior research studies or constructing

new items to collect attitudinal, behavioral, and psychological information about faculty

integration of technology into instruction. After creating an online survey instrument,

Jacobsen (1998a, p. 48) subjected it "to a number of revisions and tests to improve both its design and validity." The survey instrument "was reviewed by seven faculty members at the University of Calgary, each of whom is actively using technology in either their research or their teaching tasks. . . . Reviewers were asked to provide feedback about the content validity of the instrument, as well as to make suggestions about how to improve the design. . . Revisions were made to the design and format of the on-line instrument" based on faculty feedback and results of the pilot study (1998, p. 48).

Both the study's 26-item survey (see Appendix E) and five-item phenomenological interview (see Appendix F) instruments were based on modifications to items in Coleman, Katz, and Menzel's (1966) and Jacobsen's (1998a) instruments. The five major content areas framed the relationship between the conceptual framework and instrument items (see Table 1). The researcher believed these content areas and items to be consistent with research presented in the literature review regarding communication channels, communicators, diffusion networks, and internal and external factors influencing discussions about new ideas. In addition, each of these items was considered appropriate and suitable for assessing faculty preferences and associated values, including applicability and consistency of the resultant findings with the appropriate values (Messick, 1994a).

Table 1: Conceptual Framework

Research Question	Assess	Item	Purpose
			Personal Network Identification
1	Faculty personal networks and communication channel preferences and patterns as defined in the diffusion of innovations theory (Rogers, 2003)	First Section of survey instrument Items 2 and 3	• Obtain personal network data to create exposure models (Valente, 1999) • Categorize population for qualitative purposeful sample • Identify individual's personal network to discover connectedness of individual, as well as social network (Valente, 1999)
			Communication Channel Usage Preferences
2	Characteristics of the communication channels participants prefer to use to discuss teaching online, including method, frequency, location, and time (Rogers, 2003)	First Section of survey instrument Items 4 - 7	• Aided in accurate interpretation of personal network models based on communication channel usage and patterns (Valente, 1999) • Described types of communication channels faculty prefer to use to discuss teaching online, enabling inferences to be made about personal network exposure models and the resulting diffusion (Rogers, 2003) • Described both location and time information about physical proximity of individuals when discussing teaching online, which can impact effectiveness of diffusion (Rogers, 2003) • Described preferred frequency for communications with other UCF instructors and level of relatedness or connectedness between the individuals, which can influence the effectiveness of diffusion (Rogers, 2003)

Research Question	Assess	Item	Purpose
Factors Influencing the Practice of Discussing Teaching Online		
3	Reasons why faculty do or do not discuss teaching online can be either internal or external (Rogers, 2003)	Survey instrument Items 10 - 11	• Collected qualitative data of reasons why faculty do and do not discuss teaching online • Aided in explaining robustness of personal network exposure models • Assisted in understanding what factors aid in motivating or discouraging individual participation • Helped interpret personal network exposure models, including prior conditions, characteristics of decision-making unit, and perceived characteristics of innovation (Rogers, 2003)
Influence of Discussions on Teaching and Learning Perceptions and Decisions		
4	How discussions about teaching online have or have not influenced faculty's perceptions and decisions about teaching and learning	Survey instrument Items 8 - 9 Interview instrument Item 1 - 3	• Collected qualitative data about whether or not participants perceive any changes to their approaches and perceptions about teaching and learning based on discussions with colleagues about teaching online (e.g., behavioral change) (Rogers, 2003) • Inquired about how participants evaluate use and integrate new ideas to determine what works (e.g., individual's perception of value of innovation in meeting his/her personal needs or wants) (Rogers, 2003) • Aided in identifying whether diffusion and social learning of online teaching ideas is occurring (Rogers, 2003) • Highlighted social learning aspects of diffusion of innovations theory by illustrating learning about teaching online which occurred based on peer-to-peer discussions (Rogers, 2003) • Enabled accurate interpretation and inference about social learning regarding personal network models by collecting all elements of faculty communication channel usage (Rogers, 2003)

Research Question	Assess	Item	Purpose
			Participant Demographic Information
None	Demographic information	Survey instrument Items 1, 12 - 23	• Aided in designing survey to begin with easier questions • Collected data about participants' teaching experience and knowledge, including their use of technology: college, program, years of higher education teaching experience, years of teaching at UCF, and computer usage • Created accurate representation of participants, describing similarities and differences between participants and those with whom they discuss teaching online, which can influence the rate and effectiveness of diffusion (Rogers, 2003)
		Final survey items and interview instrument item 4	• Designed to allow participants to choose and elaborate on any item, further clarifying personal network exposure models of faculty

Instrument Validity and Reliability

Establishing validity of instruments is critical to the researcher's ability to interpret and use the assessment findings (Messick, 1990). By testing validity of the instruments, the researcher reduces the risk of invalidity, specifically construct under-representation and construct irrelevant variance (Messick, 1990, 1994a, 1995). Construct under-representation occurs when the measurement method narrowly defines the construct components or fails to include critical elements of the construct (Messick, 1995). Construct irrelevant variance happens when either extraneous tasks or hints to the construct make the task more difficult or easier to perform for some individuals. (Messick, 1995).

Defining the level of attributes, knowledge, and skills to be discovered by the assessment instruments is a critical component to the validity of any research design (Messick, 1994a). According to Messick (1994a), there are six elements of construct validity: (1) content, (2) substantive, (3) structural, (4) generalizability, (5) external, and (6) consequential. Content validity focuses on relevance of items to the intended assessment results, establishing specific boundaries (Messick, 1994a). Because the focus of the study was on understanding faculty discussions about teaching online and the development of personal network exposure models, content validity method was selected as the most appropriate construct validity element.

However, determining validity of research instruments and reducing the risk of invalidity of research findings requires combining several types of validity evidence (Nitko, 2004). Four processes assessed the validity and reliability of the study's instruments: (1) content validity employing a focus group composed of three groups of

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experts, (2) pilot test using faculty who completed the university's professional development course, IDL 6543, before 2000, and teach mixed-mode reduced seat time, (3) internal consistency reliability methods, and (4) interview consistency reliability methods.

Content Validity. The researcher conducted a content validity process through electronic review and discussion of the instruments with three types of experts: 22 College of Education faculty who teach online and/or research methods courses, 10 doctoral students at the University of Central Florida, and an expert in personal network exposure research, Dr. Thomas W. Valente (1999). The researcher identified these sources to provide advice regarding question wording and intended assessment outcomes based on their expertise designing research instruments and knowledge about teaching and learning online. A detailed description of the content validity process appears in Appendix C.

A majority of experts evaluating the instruments concurred with the intended design about which items assessed outcomes relative to each research question (see Appendix C). Recommendations for revisions to the instruments also necessitated revising the informed consent and corresponding e-mails. After revising both instruments, the informed consent, and corresponding e-mails, an addendum highlighting the proposed changes was submitted on July 28, 2005, to the University of Central Florida's Institute Review Board (IRB).

Pilot Test. After receiving addendum approval from IRB, pilot testing of the instruments occurred: (1) the e-mail process and online survey instrument pilot test between August 12 and September 1, 2005, and (2) the interview instrument and

phenomenological methodology pilot test on September 12, 2005. Based on perceived

similarities of online teaching experience to the research study sample population, the

researcher identified a pilot test sample population of 159 faculty who completed the

university's professional development course, IDL 6543, before 2000 and teach mixed

mode (M) and/or fully online (W) courses. After the pre-notice e-mail was sent, eighteen

e-mail addresses returned as undeliverable, reducing the population to 141. Another nine

e-mail addresses required correcting and resending. In addition, eight faculty members

responded they did not meet the criteria described in the e-mail, reducing the final sample

population to 124.

The researcher utilized Dillman's (2000) e-mail Internet survey respondent

contact method, proposing to send a total of four e-mails between August 9 and

September 6, 2005: (1) pre-notice, (2) notice, (3) reminder, and (4) final e-mail (see

Appendix G). A systems administrator sent the e-mails in conformance with university

policy regarding sending bulk e-mails.

Each e-mail asked respondents to complete the online survey and encouraged

them to provide feedback about their understanding of the questions and responses.

Activities and timelines appear in Table 2.

Table 2: Pilot Test Activities and Timelines

Activity	Timeline
Pre-notice e-mail sent	August 9, 2005
Notice e-mail sent	August 12, 2005
Online survey instrument accessible	August 12 through September 5, 2005
Server hosting online survey instrument down for service	Afternoon of August 15 and morning of August 16, 2005 (approximately 24 hours)
Reminder e-mail sent	August 26, 2005
UCFIRB suspended study	August 31, 2005
IRB addendum addressing faculty member's complaints filed	September 1, 2005
UCFIRB suspension of study removed	September 6, 2005
Online survey instrument data downloaded	September 6, 2005
Interview e-mail sent	September 8, 2005
Phenomenological interview conducted	September 12, 2005

As of midnight, September 6, 2005, a total of 12, or 10%, of the identified sample population voluntarily responded to the survey. Failure to attain a sufficient sample size in the pilot test prevented performance of a factor analysis. Three (4%) of the participants also provided feedback about the instrument and data collection process. The researcher utilized Microsoft Visio Professional 2002 SP-2 software to create the personal and social network models and SPSS 12.0 for Windows software to analyze the data's descriptive statistics and frequency patterns.

Internal Consistency Reliability Methods. The researcher also utilized internal consistency reliability methods to assess the degree to which the instruments consistently evaluated faculty perceptions and decisions about teaching and learning (Gay & Airasian, 2003). "Reliability is an essential prerequisite for validity" (Hopkins, 1998). The purpose of assessing an instrument's reliability is to determine how accurately and consistently it measures whatever it is measuring (Thorndike, 2005).

The more reliable the instrument, the greater the researcher's confidence the

personal network and communication channel preferences and patterns results would be

essentially the same if the instruments were given a second time to the same faculty

(Thorndike, 2005). All instruments have a certain amount of measurement error,

normally expressed as a numeric reliability coefficient (Gay & Airasian, 2003). A small

degree of error connotes more reliable results, providing a greater level of confidence in

the consistency and stability of the individual's performances across repeated measures

(Gay & Airasian, 2003; Thorndike, 2005).

Internal consistency reliability method uses data from the administration of an

instrument one time and evaluates reliability based on the results of three diverse

approaches: (1) split-half reliability, (2) Kuder-Richardson, or (3) Cronbach's alpha (Gay

& Airasian, 2003; Thorndike, 2005). The study employed a Cronbach's alpha to evaluate

reliability of the quantitative and qualitative instruments.

Cronbach's alpha reliability method addresses two potential reliability problems

inherent in split half reliability: (1) the possibility of different estimates depending on

how the instrument is split and (2) the need for both halves of the instrument to be

equivalent in difficulty (Nitko, 2004). In addition, Cronbach's alpha reliability method

determines how all items on the instrument relate to all other instrument items, as well as

the instrument as a whole (Gay & Airasian, 2003).

To perform the Cronbach's alpha reliability method, the researcher used SPSS

12.0 for Windows software to calculate and sum the item variances, as well as calculate

the variance for items summed for each person (Gay & Airasian, 2003). Although

participants in the pilot test could identify up to six different communication experiences

depending on the individual with whom they discussed teaching online, not all participants responded beyond the initial item. Therefore, Cronbach's alpha reliability method assessed the first column for each of the 32 variables. The initial analysis indicated how many items appeared on the measure to incorporate the appropriate value into the Coefficient Alpha formula (Hopkins, 1998, p. 128).

$$\rho_\alpha = K \,/\, K - 1 \,(1 - \Sigma\sigma^2_K \,/\, \sigma^2) \tag{1}$$

where ρ_α is the general reliability coefficient alpha,

K is the number of items in the test,

$\Sigma\sigma^2_K$ is the sum of the variances of the test scores, and

σ is the standard deviation.

When all of the communication items from the survey instrument were selected in the initial calculation, the command could not be executed because the scale had less than two non-zero variance items. Ten of the items had mean and standard deviations of .0000: memos, online chats, blogs, other(s) communication methods, in my car, other(s) locations, when commuting, other(s) times, and other(s) frequency.

After removing these 10 variables, the researcher ran another Cronbach's alpha reliability method and attained a reliability coefficient of .778 (see Appendix H). A review of item-total correlations suggested the variable "Rarely" is negatively correlated with the corrected total (see Appendix H). To attain a reliability coefficient of .813 score would require eliminating this variable. The researcher believed the value of the participants' potential response when describing his/her personal networks using this

variable and subsequent variables identified in Table 24, outweighed the value of a higher

reliability coefficient.

Based on the results of the Cronbach's alpha reliability method, the initial

reliability coefficient of .778 (see Appendix H) represented an acceptable level of

reliability (Gay & Airasian, 2003). A high reliability coefficient (within .5 degrees of +1

or -1) constitutes an acceptable level of reliability (Gay & Airasian, 2003).

After creating personal network models for each of the pilot test participants,

including integrated social network models, and completing the Cronbach's alpha

reliability method, the researcher performed a simple random sample to identify which

participant(s) to interview for the pilot test of the phenomenological data collection

portion of the study. The researcher identified the qualitative sample size using a mean

estimation simple random sample (Shavelson, 1996).

$$\text{N} = \frac{N\sigma^2}{(N-1)D+\sigma^2} \tag{2}$$

To determine the simple random sample size, the researcher identified (1) the

total number of faculty completing the survey instrument $(N = 12)$, (2) the lowest and

highest responses someone could give on that instrument question (lowest = 0, highest =

1), (3) the largest population variance, in all likelihood, for responses to that instrument

question (variance = 1), and (4) how accurate the estimate needs to be $(p = .1)$.

$$\sigma^2 = ((1-0)/4)^2 = (1/4)^2 = 0.25 \qquad (3)$$

$$D = B^2/4 = (1^2)/4 = (1)/4 = 0.25 \qquad (4)$$

$$N = \frac{N\sigma^2}{(N-1)D+\sigma^2} = 12 \,(0.25) \,/\, 11 \,(0.25) + 1 = 0.8571 \text{ or 1 person} \qquad (5)$$

After identifying the total number of participants for the sample size, the researcher used the Research Randomizer (http://www.randomizer.org/form.htm) to generate seven random lists of numbers before the number of a participant who completed the survey instrument appeared. Once the Research Randomizer number corresponding to an assigned participant's identification number occurred, the participant was invited through e-mail to participate in the pilot test of the phenomenological interview instrument. The individual agreed.

Interview Consistency Reliability Methods. In addition to evaluating the validity of quantitative methods, the researcher addressed the two main threats to observation and interview validity: observer bias and observer effect (Gay & Airasian, 2003). Observer bias describes the invalid observations, reflections, and interpretations brought to the interview by the researcher's background and experiences (Gay & Airasian, 2003). Observer effect describes the influence of the researcher's participation on the environment being studied (Gay & Airasian, 2003). The researcher addressed potential observer bias and observer effect validity concerns relative to qualitative aspects of the study by:

1. Documenting her own biases and preferences about discussing teaching online prior to the interviews to acknowledge potential conflicts in data analysis.

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2. Listening to participants describe their experiences discussing teaching online, interacting minimally and primarily to clarify questions or understanding of participant's response.

3. Using verbatim accounts of interviews, captured through tape recordings.

4. Allowing participants at the end of the data collection process to critique and review verbatim transcriptions to validate accuracy and meaning.

5. Examining contradictory or unusual results for clarification of meaning (Gay & Airasian, 2003).

The researcher interviewed the participant on September 12, 2005, transcribing the tape to analyze the data in terms of ability to describe the personal network models and answer the study's research questions. Unfortunately, the data received through the interview instrument pilot test did not assist in describing the personal or social network models or in more fully addressing the research questions for two reasons. First, the interview questions did not solicit the qualitative information needed to describe personal and social network models based on participants' experiences or sufficiently address the research questions.

Second, the individual identified through random sampling had a small personal network and no links to either of the social networks discovered through the quantitative data analysis. Results of the qualitative data collection methodology used in the pilot test identified a limitation of simplified random sampling: it provides equal and independent chances for anyone within the population to be selected as a member of the sample. For this reason, the researcher believed more value could be gained by using a purposeful sampling method, which enables production of in-depth understanding and insights

"rather than empirical generalizations" (Gall et al., 2003; Patton, 2002, p. 230). Through a purposeful sampling method, participants meeting diffusion of innovations (Rogers, 2003) criteria can be identified to describe their experiences discussing teaching online and explain their personal and social networks in a personalized and "information rich" manner (Gall et al., 2003, p. 165).

Upon application of these validity and reliability methods, the researcher drew the following conclusions: (1) characteristics of personal and social network exposure models can be measured and described using both instruments, (2) results of the content validity, pilot test, and Cronbach's alpha reliability method were sufficient to ensure internal consistency among items, and (3) if used on another population, the instrument should be sufficiently stable to produce results which measure the five major content areas. The data collection instruments and methods were deemed to meet appropriate quantitative and qualitative validity and reliability measures.

Both the survey and interview instruments were revised based on the following criteria: (1) results of the Cronbach's alpha reliability method, (2) perceived lack of clarity based on participant feedback, and (3) participants' responses indicating the item was perceived to measure some other construct than the one intended by the researcher. Although the survey instrument was revised, each variable retained the same code assigned during the pilot test to provide a level of continuity between pilot test and study data collection (Appendix E).

Research Methods and Procedures for Human Subject Protection

The research methods section follows Gall, Gall, and Borg's (2003) Chapter 3 dissertation format: (1) sample selection, (2) measures, and (3) timeline. The quantitative

and qualitative data collection and analyses methods comprise the measures section. The timelines for each methodology appear in the associated section.

Sample Selection

A description of the sample aids the reader in determining the population to which the findings can be generalized (Borg & Gall, 1989). The sample for the study was identified as the 249 faculty members at the University of Central Florida (UCF) who completed the university's teaching online professional development course, IDL6543, between January 2000 and May 2005 and taught either mixed-mode, reduced seat time (M) or fully online (W) courses for at least two semesters. Of the 249 initial e-mails sent, nine e-mail addresses were incorrect with no correct address available, reducing the sample size to 240.

Only individuals who participated in the survey instrument and provided their names were considered for the phenomenological interview using a purposeful sampling method (Gall et al., 2003). Patton (2002, pp. 243-244) categorizes purposeful sampling into 16 strategies: (1) extreme or deviant case, (2) intensity, (3) maximum variation, (4) homogeneous, (5) typical case, (6) critical case, (7) snowball or chain, (8) criterion, (9) theory-based, (10) confirming and disconfirming, (11) stratified, (12) opportunistic or emergent, (13) purposeful random, (14) sampling politically important cases, (15) convenience, and (16) combination or mixed.

To study the personal network exposure construct in relation to faculty discussing teaching online, the researcher employed an operational construct purposeful sampling strategy (Patton, 2002). Patton (2002) defines this strategy as identifying a sample to study a theory-based construct in a real world situation. The focus of this study was on

the operationalization of the innovation-decision process in relation to personal network exposure and as modified in Figure 2. The researcher needed to identify a sample meeting certain specific personal and social network criteria (Rogers, 2003; Valente, 1999).

After illustrating personal networks of the 59 participants who provided their names and the name(s) of other UCF faculty with whom they discuss teaching online (see Appendix J) and categorizing any social networks (see Appendix K), the researcher identified the sample based on the following participant criteria: (1) identified him/herself and at least one other individual with whom he/she discussed teaching online in the quantitative data collection portion of the study, (2) identified him/herself as a member of at least one of the two six-member or three five-member social networks (see Appendix K) classified through the quantitative data analysis portion of the study, and (3) agreed to participate in an interview process.

To operationalize the personal network construct, the number of members within the social networks with whom the survey instrument participants interacted had to vary (Valente, 1999). Differences in the number of individuals with whom participants discussed teaching online created opportunities to understand their degree of exposure based on individual discussions about teaching online (Valente, 1999). Membership in one of the two six-member or three five-member social networks offered diverse and random representation of at least one of each type of the 62 social networks categorized in the quantitative data analysis. The researcher also believed these participants would be able to describe their perceptions and experiences within most of the types of personal and social networks discovered through the quantitative data analysis, as well as

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representing a variety of Rogers' (2003) and Valente's (1999) diffusion research characteristics.

The survey instrument participants' exposure to new ideas based on their shared experiences as members of a social network provided the chance to explore their connectedness and the influence of that connectedness on their perceptions and decisions about teaching and learning (Valente, 1999). The researcher believed survey instrument participants with varied personal network exposure best met the purposes of the study because of their diverse perspectives and descriptions of personal network and social system experiences (Gall et al., 2003). Another factor influencing this purposeful sampling approach is the representation of most of the social networks discovered through the quantitative data analysis within these five social networks (see Appendix K).

Targeting survey instrument participants meeting these criteria enabled attainment of an in-depth understanding about faculty discussions regarding teaching online. Although purposeful sampling does not achieve population validity, this sampling method reduced the biases and deficiencies resulting from research volunteer participants by producing a focused description of how, why, and with whom participating faculty discuss teaching online and how those discussions influence their perceptions and decisions about teaching and learning.

A total of 17 survey instrument participants met the specified purposeful sampling criteria. Of this sample, 15 participants agreed to participate in the interview data collection.

Measures and Timelines

A sequential explanatory mixed-method research approach recommends collecting and analyzing each set of data separately (Creswell, 2003). The quantitative data collection and analysis processes were performed first, followed by the qualitative (Creswell, 2003).

The study's data collection procedures consisted of two phases: (1) administration of a quantitative survey instrument and (2) phenomenological interviews. A sociometric measurement model called personal network exposure instrument guided the quantitative diffusion research design aspects. Phenomenological research methodology aided in the design of qualitative aspects of the study, bringing the quantitative personal network analysis to life.

The online nature of the topic under investigation suggested and supported an electronic participation approach for the quantitative data collection methodology. The personal nature of understanding individuals' perceptions of an event encouraged the use of face-to-face interviews for phenomenological data collection methodology (Gall et al., 2003).

An electronic data collection instrument captured and converted the majority of participants' data in numeric values, increasing the confidentiality and anonymity of participants' responses. Participants' names, the names of any UCF faculty not appearing in the survey selection list, faculty outside the university, graduate students, and family, and any information submitted as open-ended responses by participants were hand-coded. No one besides the researcher had access to the auto or hand-codes or data, ensuring participants' anonymity and confidentiality.

Quantitative Data Collection and Analysis. As in the pilot test, the researcher

employed Dillman's (2000) e-mail Internet survey respondent contact method, sending a

total of four e-mails between September 26 and October 26, 2005: (1) pre-notice, (2)

notice, (3) reminder, and (4) final e-mail (see Appendix G). The final e-mail was sent

twice due to a technological error. Activities and timelines detailing the study's process

appear in Table 3.

Table 3: Quantitative Data Collection Activities and Timelines

Activity	Timeline
Pre-notice e-mail sent	September 26, 2005
Notice e-mail sent	September 28, 2005
Online survey instrument accessible	September 28 through November 2, 2005
Server hosting online survey instrument down for service	Afternoon of August 15 and morning of August 16, 2005 (approximately 24 hours)
Reminder e-mail sent	October 13, 2005
Survey and Form Manager inaccessible due hardware failure	October 15, 2005, 8:00 a.m. to 8:30 p.m.
UCF closed as a result of Hurricane Wilma, but reduction of online services or loss of online data	October 24, 2005
Final contact e-mail sent	October 25, 2005
Second final contact e-mail sent	October 26, 2005
Online survey instrument data downloaded	November 2, 2005

Two faculty members preferred reporting their data through an interview process.

The researcher accommodated these requests by scheduling and conducting interviews,

collecting exactly the same data as captured through the online instrument. To avoid

collecting additional data not captured through the survey instrument process, the

researcher did not engage interview participants in discussion. After transcribing the

data, the researcher entered the participants' data in the online instrument.

A total of 73 (30%) faculty members from the sample population elected to participate in the study. Faculty nominee names provided for ease of selection in a pull down box and radial button answer options on the survey instrument automatically converted to numeric data based on the researcher's coding of the survey instrument fields (Gall et al., 2003). Data retrieved from Form Manager appeared in a generic spreadsheet format. Raw data in the spreadsheet was reviewed for accuracy; any errors were corrected (Gall et al., 2003). Names and data typed by participants were manually converted to numeric data (Gall et al., 2003).

The researcher categorized the quantitative data by variables, organizing it to enable analysis and reporting in the form of personal and social network exposure models (see Appendix J and Appendix K) and frequency tables (see Appendix I). To create personal network exposure models, both participants and the individuals they identified were assigned identification numbers. Personal network models could not be created for participants who did not identify themselves (Valente, 1999).

The researcher used a software product calledVisio Professional 2002 SP-2to illustrate the data as personal network exposure models, creating a total of 59 personal network models (Valente, 1999, pp. 43-47). In one instance, a participant identified 121 faculty members with whom he discussed teaching online. Normally, network models utilize circles to represent participants. However, to make study participants easy to identify, star-shaped objects represented participants and circles represented the faculty with whom they talk. Personal network exposure models for the 15 faculty interviewed appear in Chapter Four; the remainder of the models appear in Appendix J.

A comparison of personal network models identified social networks (Rogers, 2003; Valente, 1999). For the purpose of this study, a social network occurs when more than one participant identifies the same faculty member with whom they discuss teaching online. A total of 62 social networks were identified: 42 identified by two participants, 11 identified by three participants, four identified by four participants, three identified by five participants, and two identified by six participants (see Appendix K). Cloud shapes represent faculty members identified by more than one participant. The cloud color indicated the number of participants identifying the faculty member: (1) pink represented six-participants, (2) grey represented five-participants, (3) yellow represented four-participants, (4) green represented three-participants, and (5) blue represented two-participants.

According to Valente (1999, p. 45), personal network exposure and connectedness to a social network is determined by subtracting 1 from the population (N − 1). Using this formula, the researcher determined personal networks of two participants did not connote a social network due to their lack of exposure and connectedness. Social networks identified by five or six faculty participants were modeled using Visio Professional 2002 SP-2 (see Appendix K).

Next, frequency of quantitative data was analyzed using SPSS 12.0 for Windows software (Gall et al., 2003). The researcher selected frequency statistical procedures based on their ability to address the relative research question (Gall et al., 2003; Shavelson, 1996).

Qualitative data received in response to survey instrument item numbers 14, 15, 16, and 17 was analyzed using a content analysis methodology (Patton, 2002).

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According to Patton (2002, p. 452-453), content analysis describes any qualitative data "reduction and sense-making effort that takes a volume of qualitative material and attempts to identify core consistencies and meanings."

First, all responses relevant to answering each of the qualitative survey instrument items and associated research questions were listed to identify significant statements and recurring themes (see Appendix L and Appendix M) (Gall et al., 2003; Moustakas, 1994; Patton, 2002). Significant statements and recurring themes describe key phrases or words used by participants to answer the survey item. Themes were tested based on the necessity and sufficiency of each statement to address the associated instrument item and research question describing faculty personal networks and discussions about teaching online (Moustakas, 1994). Then, the statements and recurring themes were organized into categories, eliminating any which could not be categorized (Moustakas, 1994). Categories describe key phrases and words which recur throughout the responses and represent similar responses and terms (such as: aid, help, and assist represent one category).

Finally, the categories were checked against the faculty participants' survey instrument responses to determine (1) if the categories were explicit, (2) if not explicit, if the categories were compatible, and (3) if the categories were neither explicit nor compatible, delete them (see Appendix L and Appendix M) (Moustakas, 1994). After categorizing the data and numerically coding the categories, the numeric data was entered into a statistical software product called SPSS 12.0 for Windows to analyze data frequency.

Next, the researcher reviewed statistical correlation method options. When the study was originally proposed, the survey instrument was designed to collect interval/ratio data. Under those circumstances, a multiple regression was intended to analyze relationships among the data (Shavelson, 1996). After completing the content validity analysis and pilot test, design of the instrument enabled collection of only nominal data and frequency statistics (Shavelson, 1996). As a result, a Chi-Square Test of Independence (x^2) was selected to identify relationships among the data (Shavelson, 1996). However, due to participants' ability to choose more than one response to most of the questions, the data had repeated measures. Further complicating any correlation analysis was the small sample size. Because correlational data was not needed to address any of the research questions, the researcher terminated the quantitative data analysis with frequency statistics needed to address the research questions. Findings from the statistical data analysis appear in the next chapter.

Phenomenological Data Collection and Analysis. The study supplemented quantitative data with the collection of qualitative data through a phenomenological design method of inquiry. A phenomenological research methodology was chosen because the approach focuses on understanding individual patterns and meanings, such as communication patterns (Creswell, 2003; Moustakas, 1994). One of the strengths of a phenomenological study is its ability to capture and communicate detailed accounts of its participants as they experience a particular event, (Creswell, 1994; Leedy & Ormrod, 2001; Moustakas, 1994).

The researcher employed phenomenological research methods to record, analyze, and interpret individual faculty member perceptions, experiences, and opinions regarding

their discussions about teaching online. To collect in-depth and specific qualitative data about the personal and social network models and how discussing teaching online influences faculty's perceptions and decisions about teaching and learning, semi-structured interviews with a sample of survey participants were conducted. Phenomenological data collection activities and timelines appear in Table 4.

Table 4: Phenomenological Data Collection Activities and Timelines

Activity	Timeline
Interview e-mail sent	November 6, 2005
Reminder interview e-mail sent	November 16, 2005
Phenomenological interviews conducted	November 7 through December 20, 2005

Four of the participants requested to be interviewed by e-mail. The researcher created an informational cover for the interview questions to provide the same purpose and explanation for the study and interviews as provided to face-to-face participants (see Appendix F). Adobe Acrobat files of the personal and social network models also provided e-mail participants with the same information as face-to-face participants.

Three of the participants requested to be interviewed by telephone and agreed to be audiotaped. The remaining nine participants agreed to be interviewed face-to-face, one-on-one, in-person, and audiotaped. Face-to-face and telephone interviews were scheduled at the most convenient time and place for the participant.

The researcher believed audiotaping the interview aided in describing participants' discussion experiences using richer information, as well as more accurately capturing and portraying the participants' verbal communications. However, the last interview was conducted twice due to a tape recorder malfunction. Discovering the issue

when transcribing the tape, a transcript of the researcher's notes and what was captured on audiotape were e-mailed to the participant along with an explanation of what occurred. The participant considered the transcripts incomplete and agreed to a second interview. Two tape recorders were used for the second interview.

Open-ended questions allowed participants to explain and elaborate in their own words about their perceptions and experiences regarding different characteristics of their personal and social networks resulting from discussing teaching online (see Appendix J and Appendix K). The researcher employed the same interview consistency reliability methods for the study as described in the pilot test, plus a few additional protocols (Gall et al., 2003; Leedy & Ormrod, 2001):

1. The interviews were audiotaped as agreed to by participants. The researcher:

   a. Provided an introduction to any audiotaped information which stated (at a minimum): what was audiotaped; the date, time, and location of the audiotaping; and participant audiotaped.

   b. Noted any observations or thoughts about the interviews after the audiotaping concluded.

   c. Described her observations about the relationship between the phenomenological responses and the personal network exposure model after reviewing the audiotape in relation to the literature.

2. Thanked participant for agreeing to be interviewed.

3. Explained the purpose of the research study, the research methodology, the personal and social networks, and participant's role.

4. Explained the interview process.

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5. Asked if participant had any questions about the research study or the process, and responded as appropriate.

6. Asked if participant was ready to begin.

7. After beginning the interview, allowed sufficient time for participant to respond to each question completely, recording by hand as much as possible.

8. Thanked participant again for agreeing to be interviewed.

9. After the face-to-face and telephone interviews concluded, transcribed the audiotapes, summarizing participants' responses to reveal emergent categories and themes (Gall et al., 2003; Moustakas, 1994).

At the end of each day, the researcher reviewed the data collected and recorded for analysis purposes (Patton, 2002). Next, taped interviews were transcribed and formatted into a Word document (Moustakas, 1994). No one but the researcher had access to the audiotapes or transcriptions, ensuring participants' anonymity and confidentiality.

To accurately describe the original perceptions and descriptions of participants' personal and social networks and experiences discussing teaching online in their own words, a case study data analysis method was used (Patton, 2002). For each interview participant, transcribed data was topically organized based on associated interview item and research question. Then, through a content analysis process, raw data was edited and molded to tell participants' stories about discussing teaching online (Patton, 2002).

All responses relevant to answering each of the research questions were listed to identify significant statements and organized into categorical themes (Moustakas, 1994; Patton, 2002). Next, the researcher checked the themes and categories against

participants' interview transcripts to determine (1) if the theme and categories are explicit, (2) if not explicit, if the theme and categories are compatible, and (3) if the themes and categories are neither explicit or compatible, deleting it (Moustakas, 1994).

The narrative emerging from the data analysis presented objective case studies of participants' perceptions regarding their personal and social network experiences, as well as how their discussions influence their perceptions and decisions about teaching and learning (Patton, 2002). The researcher employed several conventions to convert participants' case studies into textural and structural descriptions: (1) quoting participants verbatim, (2) varying the use of quotations and paraphrasing, and (3) interweaving quotations with the researcher's interpretations of the data (Gall et al., 2003; Patton, 2002).

Finally, the researcher synthesized the quantitative data results with each interview participant's textural and structural description and findings from literature review related to personal and social networks, communication channels, and social learning. Through this synthesis, the researcher developed a more holistic understanding of faculty's personal and social networks, discussions about teaching online, and social learning experiences (Moustakas, 1994). After reflecting on this synthesis, the researcher detailed her findings in Chapter Five (Moustakas, 1994).

Achieving Study Validity and Reliability

The researcher employed several methods of achieving validity and reliability: (1) Kuder-Richardson 20 reliability procedure for quantitative data findings, (2) peer debriefing of qualitative data categories of survey items, (3) interview participants review

of their own textural and structural descriptions, (4) study review by RITE researchers, and (5) review by dissertation committee members.

Kuder-Richardson 20 Reliability Procedure

A Kuder-Richardson 20 reliability procedure was used to determine how internally consistent the survey items were. Although 73 faculty participated in the survey instrument, only 57 responded to items 10 through 13. The results indicate an acceptable reliability coefficient of .726.

Table 5: KR-20 Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.755	.726	31

Table 6: KR-20 Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	.259	.014	.781	.767	57.000	.071	31
Item Variances	.125	.014	.253	.240	18.500	.007	31

The covariance matrix is calculated and used in the analysis.

Peer Debriefing

Two faculty members who did not participate in the study and were external to the study, but familiar with the data and research, provided peer debriefing of the qualitative data themes and categories for survey items 14 through 17. In a peer debrief, the reviewer plays "devil's advocate" (Creswell & Miller, 2000, p. 129), challenging the researcher's assumptions, methods, and interpretations. Through close collaboration and detailed feedback, the reviewers pushed the researcher "to the next step methodologically" (Creswell & Miller, 2000, p. 129), enhancing the validity and

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reducing bias. In general, the reviewers concurred with each other about the themes and

categories presented by the researcher. The analysis and data were revised as necessary

(see Appendix L and Appendix M).

Interview Participants Review

The researcher submitted the phenomenological data and findings to participants

in the study, requesting they carefully examine the data presented, making additions and

corrections, as necessary, to reflect accurately their communication channel experiences

(Gall et al., 2003). Additional text requested by participants to be added for clarity

appears in brackets. Documents were revised as necessary and prepared into a final draft

form (Gall et al., 2003).

Review by RITE

The researcher requested the Research Initiative for Teaching Effectiveness

(RITE) review the study and findings. The researchers reviewed and provided feedback

regarding validity of the research study as related to their experience at the University of

Central Florida. The document was revised as necessary.

Review by Dissertation Committee Members

The final draft of the report was submitted to the dissertation committee members

to review the study's methodology and findings, and provide feedback regarding the

accuracy of the findings based on the researcher's processes (Gall et al., 2003). The

study was amended as necessary based upon committee feedback (Gall et al., 2003).

Summary

The purpose of the study was to discover the personal network exposure

experiences of some synchronous and asynchronous Internet-based faculty at the

University of Central Florida regarding discussions about teaching online. The researcher chose a sequential explanatory mixed-method approach (Creswell, 2003) to guide the data collection and analysis. Sociometric data collection items were created to gather the data and validated through content validity and pilot test processes. Personal and social network models illustrated findings to Research Question One. Other quantitative data was analyzed to describe frequency of responses addressing the other three research questions. Phenomenological data was captured through interviews, analyzed using case study methodology, and formed into textural and structural descriptions of participants' personal and social networks and experiences discussing teaching online. Study validation required review by four groups: expert peer, participants, the researchers at RITE, and the dissertation committee.

CHAPTER FOUR: RESEARCH FINDINGS

Introduction

Three sections comprise this chapter summarizing the online survey and interview instrument results. Section one presents a summary of survey instrument response rates, followed by phenomenological interview response rates. Section two provides salient quantitative findings to the research questions, including respondent demographics. Section three depicts phenomenological interview findings by presenting descriptions of 15 participants' personal and social network experiences regarding discussions about teaching online.

Instrument Response Rates

The sample for the study consisted of synchronous and asynchronous Internet-based faculty (herein after referred to as faculty) at the University of Central Florida (UCF) who completed the university's instructional design professional development course between January 2000 and April 2005 and taught mixed mode, reduced seat time (M) or fully online (W) courses. Of the 240 valid e-mail addresses contacted, 73 (30%) faculty voluntarily completed the online instrument. Twenty-eight (38%) faculty participated after the first e-mail, 11 (15%) after the reminder, and 34 (47%) after the final.

Only 59 (80.8%) faculty provided their names therefore could be considered for the phenomenological interview sample. The sample was further narrowed to faculty participants who self-identified with at least one of the two six-participant or three five-participant social networks (see Appendix K). Seventeen (4.29%) of the 73 (total) survey instrument participants meeting the purposeful sampling criteria were invited to

participate in the phenomenological interview. Fifteen (1.3%) faculty members of the contacted sample population voluntarily agreed to be interviewed.

<div align="center">Quantitative Research Procedure Findings</div>

Frequency of responses for quantitative survey instrument data was analyzed using SPSS 12.0 for Windows (Gall et al., 2003). Quantitative findings addressing participant demographics and each research question follows.

<div align="center">*Participant Demographics*</div>

A total of 73 (or 30% of 240 total) faculty participants (50 [68.5%] female and 22 [30.1%] male), who are on average 40 to 49 years old, and hold various academic positions and appointments responded to the survey instrument (see Appendix I).

The largest group of faculty participants (20 or 27.4%) represented six to 10 years teaching experience. When added to the second largest group of one to five years (18 or 24.7%), more than 50% (52.1%) of participating faculty described their teaching experience as equal to or less than 10 years. Similarly, the majority of participating faculty (57 or 78%) had equal to or less than 10 years teaching at UCF (see Table 7).

Table 7: Frequency of Online Survey Instrument Response Rates by Years Experience

Teaching Overall and at UCF

	Frequency	Percent
Years Experience Teaching		
No Years Exp. Provided	1	1.4
1-5 years	18	24.7
6-10 years	20	27.4
11-15 years	11	15.1
16-20 years	11	15.1
21-25 years	4	5.5
26-30 years	5	6.8
> 30 years	3	4.1
Total	73	100.0
Years Experience Teaching at UCF		
1-5 years	32	43.8
6-10 years	25	34.2
11-15 years	8	11.0
16-20 years	5	6.8
21-25 years	2	2.7
> 30 years	1	1.4
Total	73	100.0

In addition, the majority of faculty participants (38 or 52%) have taught M

courses for one to four years. Similarly, a majority (43 or 58.9%) have taught W courses

for one to four years (see Table 8). Additional salient demographic data about faculty

participants appears in Appendix I.

Table 8: Frequency of Online Survey Instrument Response Rates by Years Teaching M and W

Courses

	Frequency	Percent
Years Teaching M Courses		
.00	8	11.0
< 1 year	14	19.2
1-2 years	19	26.0
3-4 years	19	26.0
5-6 years	12	16.4
> 10 years	1	1.4
Total	73	100.0
Years Teaching W Courses		
.00	12	16.4
< 1 year	12	16.4
1-2 years	22	30.1
3-4 years	21	28.8
5-6 years	5	6.8
9-10 years	1	1.4
Total	73	100.0

The majority of faculty participants (37 or 50.7%) estimated their average daily computer usage at six to 10 hours per day. Another 22 (30.1%) estimated usage at approximately three to five hours per day (see Table 3).

Table 9: Frequency of Online Survey Instrument Response Rates by Average Daily Computer Usage

	Frequency	Percent
1 - 2 hours	2	2.7
3 - 5 hours	22	30.1
6 - 10 hours	37	50.7
11 - 15 hours	6	8.2
> 15 hours	6	8.2
Total	73	100.0

Research Question One

What personal networks do synchronous and asynchronous Internet-based faculty use to

discuss teaching online?

Survey instrument items developed to address this research question requested

participants provide their names and the name of at least one other UCF faculty member

with whom they discussed teaching online (see Appendix E). Data provided enabled

creation of 59 personal network models (see Appendix J). A comparison of personal

network models uncovered 62 social networks (see Appendix K); the five used for the

purposeful sample are illustrated in Appendix K.

Research Question Two

What communication channels do synchronous and asynchronous Internet-based faculty

use to discuss teaching online and how do they use them?

Survey instrument items 10 through 13 provided frequency of communication

channel data. Most faculty (57 or 78.1%) identified both face-to-face and e-mail as the most

common communication channels employed to discuss teaching online. Two faculty each

nominated Instant Messenger and WebCT shared designer access as commonly used channels (see Table 10).

Table 10: Frequency of Communication Methods Used by Faculty to Discuss Teaching Online

	Frequency	Percent
Face to Face	57	78.1
e-mail	57	78.1
Telephone	21	28.8
Cellphone	8	11.0
Instant Messenger	2	2.7
WebCT Shared Designer Access	2	2.7

Note: Frequency reflects number of times response appears rather than number of participants responding.

In addition to standard responses about where they discuss teaching online, faculty nominated three more locations: WIFI establishments, Faculty Center for Teaching and Learning (FCTL), and Course Development and Web Services (see Table 11).

Table 11: Frequency of Where Faculty Discuss Teaching Online

	Frequency	Percent
On Campus	50	68.5
In Their Offices	48	65.8
From Home	35	47.9
At Conferences	13	17.8
In Their Cars	5	6.8
In a Conference Room	4	5.5
From WIFI Establishments	3	4.1
At FCTL Teaching Circles	2	2.7
At CDWS WebCT Labs	1	1.4

Note: Frequency reflects number of times response appears rather than number of participants responding.

Fifty-two (71.2%) faculty participants discuss teaching online whenever it is convenient for them, compared to two faculty (2.4%) who reported discussing teaching online whenever it is convenient for the other person (see Table 12).

Table 12: Frequency of When Faculty Discuss Teaching Online

	Frequency	Percent
Whenever It Is Convenient for Me	52	71.2
After Meetings	22	30.1
Before Meetings	18	24.7
During Meetings	12	16.4
When I Commute	4	5.5
Whenever It Is Convenient for Them	2	2.7

Note: Frequency reflects number of times response appears rather than number of participants responding.

More faculty participants discuss teaching online between 8:00 a.m. and 5:00 p.m. than discuss teaching online weekdays (37 or 50.7%) (see Table 13).

Table 13: Frequency of What Time of Day or Week Faculty Discuss Teaching Online

	Frequency	Percent
Between 8:00 a.m. and 5:00 p.m.	40	54.8
After 5:00 p.m. and Before 8:00 a.m.	12	16.4
24 Hours a Day, Seven Days a Week	1	1.4
Weekdays	37	50.7
Weekends	10	13.7

Note: Frequency reflects number of times response appears rather than number of participants responding.

Forty-five (61.6%) faculty participants discuss teaching online occasionally (see Table 14).

Table 14: Frequency of How Often Faculty Discuss Teaching Online

	Frequency	Percent
Occasionally	45	61.6
Often	11	15.1
Rarely	10	13.7
Once a Semester	2	2.7
Very Often	1	1.4

Note: Frequency reflects number of times response appears rather than number of participants responding.

Research Question Three

What reasons do synchronous and asynchronous Internet-based faculty provide for why they do or do not discuss teaching online?

Analysis of participants' qualitative descriptions to survey instrument items 14 and 15 about why they discuss teaching online identified 13 common categories: (1) advice, (2) ideas, (3) course design, (4) problem solve, (5) exchange, (6) technology, (7) student concerns, (8) commiserate, (9) program administration, (10) expert, (11) pedagogy, (12) philosophy, and (13) evaluation (see Appendix L). Table 15 details the frequency of reasons why participants discuss teaching online.

Table 15: Frequency of Reasons Why Faculty Discuss Teaching Online

	Frequency	Percent
Advice	43	58.9
Ideas	33	45.2
Course Design	24	32.9
Problem Solve	23	31.5
Exchange	21	28.8
Technology	15	20.5
Student Concerns	16	21.9
Commiserate	5	6.8
Program Administration	4	5.5
Expert	2	2.7
Pedagogy	2	2.7
Philosophy	2	2.7
Evaluations	1	1.4

Note: Frequency reflects number of times response appears rather than number of participants responding.

Similarly, 14 common categories from participants' responses regarding why they do not discuss teaching online with other faculty emerged: (1) different teaching experiences, (2) not interested, (3) not enough time, (4) no opportunity, (5) different discussion focus, (6) creates tension, (7) fear of being considered inadequate as teacher, (8) discussion limited to electronic method, (9) other faculty member has less experience, (10) other priorities, (11) solve own problems, (12) fear of being perceived as complainer, (13) interference and jealousy, and (14) mutual unsolvable problem (see Appendix L). Table 16 explains the frequency of reasons why participants do not discuss teaching online.

Table 16: Frequency of Reasons for Why Faculty Do Not Discuss Teaching Online

	Frequency	Percent
Different Teaching Experiences	12	16.4
Not Interested	9	12.3
Not Enough Time	8	11.0
No Opportunity	6	8.2
Different Discussion Focus	5	6.8
Creates Tension	5	6.8
Fear of Being Considered Inadequate as Teacher	3	4.1
Discussion Limited to Electronic Method	2	2.7
Other Faculty Member Has Less Experience	2	2.7
Other Priorities	2	2.7
Solve Own Problems	2	2.7
Fear of Being Perceived as Complainer	1	1.4
Interference and Jealousy	1	1.4
Mutual Unsolvable Problem	1	1.4

Note: Frequency reflects number of times response appears rather than number of participants responding.

Research Question Four

How have discussions about teaching online among synchronous and asynchronous Internet-based faculty influenced their perceptions and decisions about teaching and learning?

Six common categories emerged through the analysis of the data for qualitative survey instrument item 16: (1) teaching, (2) beliefs, (3) support, (4) student learning, (5) use of technology for teaching, and (6) inspires research (see Appendix M). Table 17 illustrates frequency of responses regarding how discussions about teaching online have influenced synchronous and asynchronous Internet-based participants' perceptions and decisions about teaching and learning.

Table 17: Frequency of How Discussions about Teaching Online Have Influenced

Faculty Perceptions and Decisions Regarding Teaching and Learning

	Frequency	Percent
Teaching	37	50.7
Beliefs	21	28.8
Support	12	16.4
Student Learning	12	16.4
Use of Technology	9	12.3
Research	2	2.7

Note: Frequency reflects number of times response appears rather than number of participants responding.

Analysis of responses to qualitative survey instrument item 17 provided four common categories: (1) have own philosophy about teaching, (2) rarely discuss, (3) discussions had no substance, and (4) other faculty member's negativity about teaching online (see Appendix M). Table 18 presents frequency of responses regarding how discussions about teaching online have not influenced synchronous and asynchronous Internet-based participants' perceptions and decisions about teaching and learning.

Table 18: Frequency of How Discussions about Teaching Online Have Not Influenced

Faculty Perceptions and Decisions Regarding Teaching and Learning

	Frequency	Percent
Own Philosophy	11	15.1
Rarely Discuss Teaching Online	5	6.8
No Substance	2	2.7
Negativity	1	1.4

Note: Frequency reflects number of times response appears rather than number of participants responding.

Phenomenonological Research Procedure Findings

Fifteen of 17 faculty participants invited to participate in the interview process agreed and received a pseudonym based on his/her gender to present a visual image. Table 19 provides the participant's number and corresponding pseudonym.

Table 19: Pseudonyms for Faculty Interview Participants

Participant Number	Pseudonym
p18	James
p26	John
p35	Michelle
p40	Lisa
p98	Debbie
p124	Ruth
p140	Emily
p154	Paul
p155	Sara
p176	Julie
p179	Tina
p200	William
p220	Joyce
p239	Alison
p242	Peter

Interviews began by asking each faculty participant to provide a demographic description of him/herself (see Appendix F). Subsequent interview items inquired about faculty participants' perspectives and experiences regarding their personal networks and discussions about teaching online. From each participant's response, individual textural and structural descriptions were fashioned to describe the personal and social network models and address each of the four research questions in participants' words.

Textural and Structural Personal Network Description of p18 – James

James "taught two years . . . at the high school level, before moving into higher education where, in my master's program, I was a teaching assistant." He has taught at UCF for five years. "Mostly, I teach graduate classes, master's and doctoral students." James has taught mixed-methods courses, however, never "actually" a fully online class because he does not think fully online "necessarily fits the kinds of things I teach" and he does not "enjoy detailed course preparation." He began teaching online because the university decided his program should offer mixed mode or fully online courses.

James describes his instructional approach as "pretty Socratic" with a little bit of lecture. He also uses constructivist approaches such as requiring pre-reading of course materials and basing classroom conversations on those readings. Most of his classes use collaborative activities.

As a self-described innovator, he sees the pros and cons of change. "I think people have. . . to have clear motivations to want to change. They have to have reward for it. They have to have motivation for it. They have to rely on their values. So, I mean, if you want just an example of my own teaching, I don't change my own classes very often [because it is not valued by my institution nearly as much as research is valued]." In addition, James says "there has to be a clearly identifiable problem before I go out and try to find something new. . . I usually spend a fair bit of time mulling over what exactly is the nature of the problem before I jump into making any kinds of course or program revision. Too often, I think, people try to fix problems in superficial ways rather than trying to get at the fundamental problem."

James' technology skills are "pretty sophisticated." But he does not value technology "all that much." Due to his technology knowledge, he is "pretty selective about the kinds of plans and activities that I do online. There are some kinds of things that are clearly well suited to working at a distance and others which are not."

He describes his personal network (see Figure 3) as "pretty much it's the faculty with whom I teach, in the same program, same department." He's not sure if they share similar educational backgrounds, however, knows their fields are "pretty diverse." Generally, James thinks the members of his personal network "tend to agree on the appropriateness of technology" for teaching. Although their offices may be located in relatively the same proximity, he speculates "most of the people in my profession have mainly a professional relationship."

In discussions with other faculty members within his personal network, James considers himself primarily the sender. "Occasionally, I find. . . I probably originate ideas, more ideas, with my colleagues than I get from them, often because of ideas that I get from my doctoral students. Now that I think about it, at least two or three doctoral students. . . who are not teaching at UCF. . . are included on my personal network."

Discussions about teaching online with other faculty members "usually" occur "face-to-face," which is his preferred communication preference, and only "three or four times a semester." James said the frequency of his discussions are affected by his experience teaching online because he "generally" doesn't "find teaching online all that satisfying and interesting. So I don't do it very often."
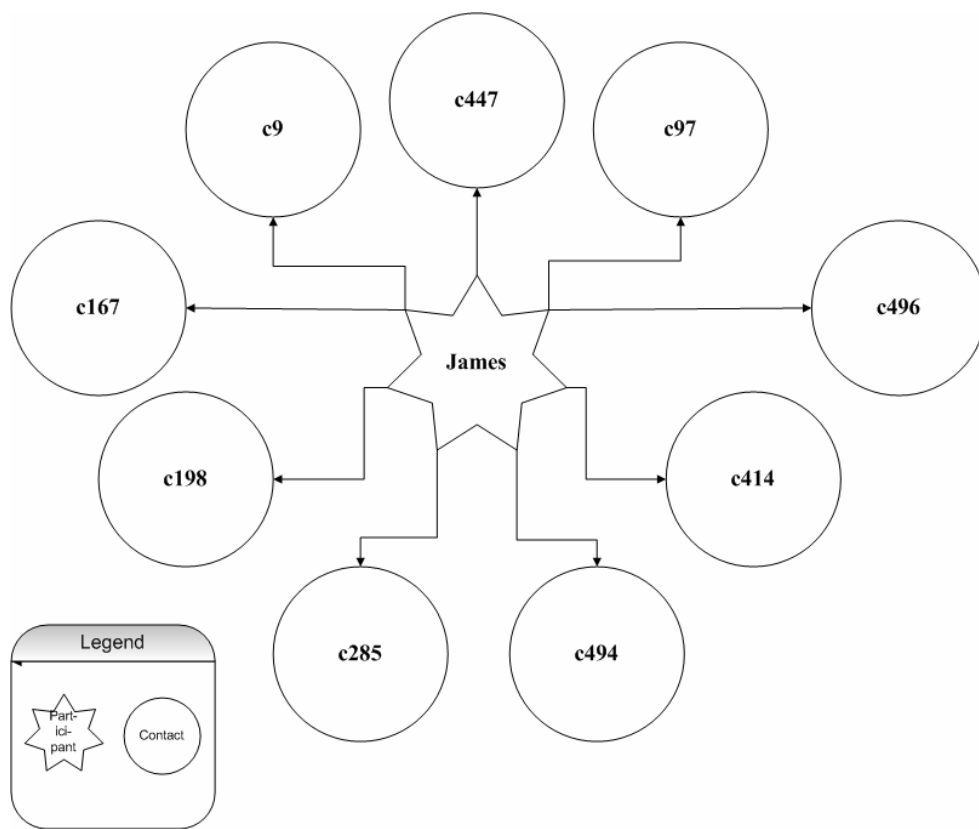
Figure 3: Personal Network Model of p18 – James

His work hours vary due to his teaching schedule. "On days that I teach, most of my classes are night courses, so. . . it's usually from eight in the morning until nine at night. . . I don't teach from 9:00 to 5:00." However, work hours do not necessarily influence when he discusses teaching online as much as personal ethics. "I would never do it during social activities. . . If I had a conversation about online teaching, it would be part of the work hours."

These discussions typically occur because "I hear other people occasionally initiate conversations just to tell me what they're doing, or I inquire what they're doing

just to keep on top of my program. . . I hear about things all the time and probably have face-to-face conversations about them, usually before or after a meeting, that kind of thing." Nothing prevents him from discussing teaching online. "I don't think anything would prevent me from doing something."

When asked how he prefers to learn about new teaching online ideas, James responds "usually, I hear or read about something and then have a look at them" when asked about his preference for learning about new teaching online ideas. He "does a little bit of investigation and finds out what they're good for and what they're not good for, and file that away for future reference if I ever need it."

James is most influenced by "the alignment with my instructional objectives primarily. Is it going to help me better teach what I want to teach? And, frankly, how much time and effort will I have to put into it" when deciding about new teaching online ideas. "Time commitments" inhibits him from trying new teaching online ideas.

When asked to provide a few examples of teaching online ideas resulting from his discussions, James responded "There was the suggestion about podcasting. . . I don't have any particular desire to spend hours of typing which is often required for designing things in the WebCT environment. So the idea of lecturing into a microphone and podcast it out sounded interesting. I haven't done anything about it. I might at some point. The idea of wikis I thought was a stupid one. I couldn't see the advantage of it. . . Not a conversation but a doctoral student, her dissertation was on students' experiences in online courses. And one of the most interesting findings for me that jumped out that she did not emphasize in her findings was that faculty overwhelmingly, in her sample, put a lot of energy into their concerns that it might not be the real student engaged in the online

course. And so they put a lot of extra steps in requiring students to be certain places and do certain things, so they can verify that the students were the ones actually taking the courses. And her data about these students' experiences overwhelmingly indicated that those things the professors did seriously degraded the quality of student learning. And it just brought to the fore the importance for me of not doing that kind of silly stuff. If I don't have any reason to believe that the students are going out of their way to cheat, I don't feel the need to control their learning experiences. And, on the other side, I'm just trying to make sure they have meaningful learning activities that the students can engage in and learn from, and happen to be the kinds of activities that makes it really hard to plagiarize or cheat on it. And I think most of the distance kind of activities that I use are mostly ungraded. . . The actual summative assessment comes in other kinds of activities. That has nothing to do with the technology itself, as it does with how I design it. That's just good pedagogy."

When asked if there was anything else he wanted to tell the researcher to help her understand his experience teaching online, James responded "what a horribly negative experience the IDL training was for me. It took me a while to overcome it. The classroom experiences themselves were dry and pedantic, and not very engaging. And I often felt they spent too much time absorbed in the technology side of it. So it certainly is not motivating and is somewhat daunting. I was probably put off it (teaching online) for a good year or two. I did minimal if anything with it."

Textural and Structural Personal Network Description of p26 – John

John began teaching in 1984 "as a high school (discipline) teacher." He describes his teaching preference as anything providing "personal contact with students" both

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"inside and outside the classroom." Personal contact is what makes him most productive because he likes students. "I like kids." John primarily uses a Socratic instructional method, asking "a lot of questions of the students" and "virtual discussions" which draw "the students into thinking." In addition, he enjoys creating practical activities with real world data for the students to perform. "So for instance, today, we did a calculation of a real weather system for a city here in Florida."

Like James, John did not elect to teach online. Rather, the university decided in 2004 "that all the (discipline) classes were to be W mode by this semester." Although he enjoys teaching regardless of the modality, teaching online is "not face-to-face." Although the personal contact he enjoys "is completely lacking," John still finds opportunities for "a lot of contact" through online tools such as "AOL Instant Messenger, course mail stuff." The lack of personal contact in a fully online course causes him to prefer mixed mode courses. "M mode is a nice mixture."

As a self-described innovator, John says he thrives under change: "although I'm on a low faculty status, so that makes it harder to be a trailblazer." When deciding about whether or not to adopt a new idea or practice, he thinks "about it a lot" and interacts with others. "When I change something I always try to talk to people that know about what I'm trying to do. . . what I like to try to do is talk to people, show people what I want to do, see what they think, and then I like to talk to people that actually know more about it than I do. So when I'm doing that, I like to be in communication--I tend to try to communicate in as many different channels and modes as possible."

John describes his technology skills as "pretty good" because he "uses it" and he's "not afraid of it." He's "used the Web since I started teaching in math, probably about since '96."

His personal network (see Figure 4) consists of faculty "in CAS (College of Arts and Science)," however, he discusses teaching online with faculty outside his program and department. He currently teaches about 135 students online and another 360 students in regular face-to-face classes. One of the faculty in another college from whom he sought advice about teaching online teaches a very large fully online course.

In his opinion, aside from other faculty within his department, many of the faculty with whom he discusses teaching online do not share his "educational background." In addition, John does not think he shares the same "teaching experiences" as many of the members of his personal network due to the number of contact hours he earned teaching high school. Like several other faculty interviewed, John also "talks to the students" and "makes changes to his courses" based on "their suggestions sometimes."

One of the reasons John seeks discussions with faculty outside the College of Arts and Science is because "in my department not many people actually believe in teaching online, unfortunately." John says many of the CAS faculty "focus on research and not teaching, so they don't have experience teaching. They feel very timid about teaching." Although their "classes are fairly well coordinated, . . . the other faculty members are much more timid about things. They don't really have any confidence, most of them." His relationship with these faculty members is "professional." However, these relationships have little influence over his perceptions and decisions about teaching online because "I'm ahead of everybody. . . I help the other guys out." John often

discovers new and better ways to teach online and "initiates" conversations with other

faculty members to share what he learns.
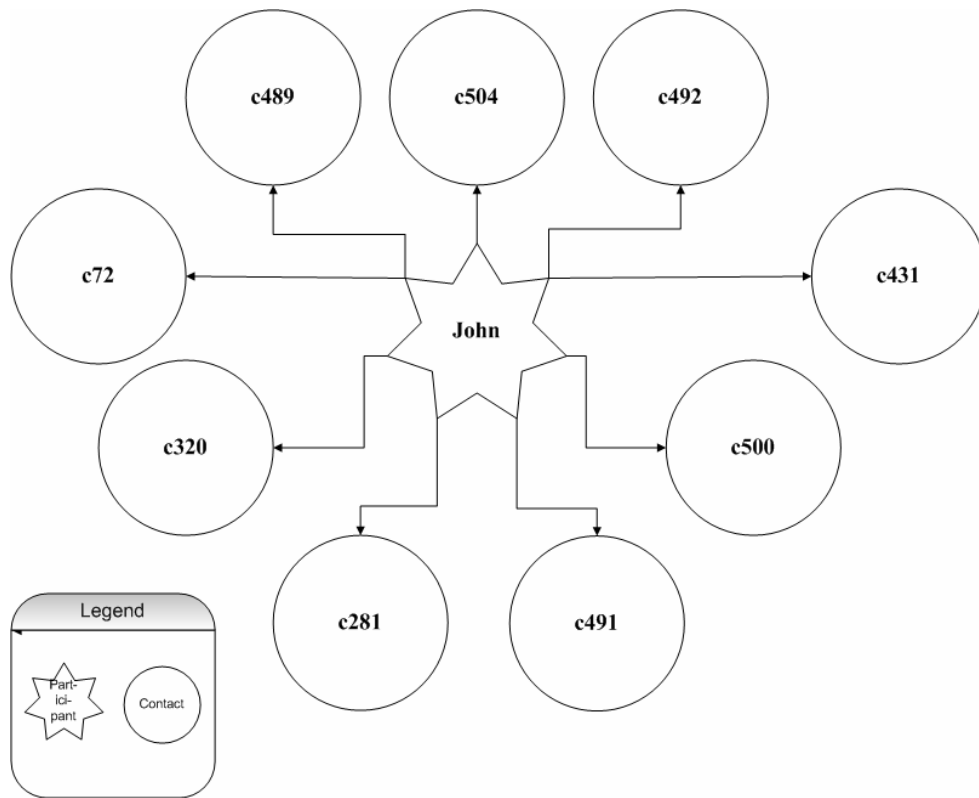
Figure 4: Personal Network Model of p26 – John

Most of John's discussions occur through "e-mail and AOL Instant Messenger. . .

I think the best, the dominant one, is AOL Instant Messenger because it's live. So when

I'm showing people, if I'm telling somebody how to work with WebCT to get their

grades in, I'll be coaching them in AOL Instant Messenger, or I'll be sitting there, but

more often it happens when neither of us are in the same place, but we are on AOL

Instant Messenger so we can." John posits "they should get all the faculty to start using

AOL Instant Messenger the way all the staff does" because it is "more efficient communication. More frequent. E-mail is like snail mail." Interestingly, when asked if his preferred communication method is Instant Messenger, John responded "I would say so. You know, I guess my preferred is in person, but other than that, AOL Instant Messenger."

John considers his work hours to be "from seven a.m. to about two p.m., Monday, Wednesday, and Friday. That's when I'm on for my face-to-face classes, and I don't normally talk about online teaching that much during that time, so I'd have to say after my normal work hours. After my normal work hours for face-to-face teaching, I'm usually working on online teaching or available to talk about online teaching." These discussions happen "at least four or five times a day."

For John, the more experience he gains teaching online, the more frequently he discusses it. However, John suggests there are "barriers to discussing it in our department because our department doesn't really believe in it. . . I think the majority of the department feels that way. And I don't think that's a permanent state of affairs but that's the way it is right now. It's like a lot of things, you know, we've always done it this way for the last thirty years, we're going to keep doing it this way for the next thirty years."

John says "sometimes, like the guys that I've showed how to use WebCT and get started in WebCT, I check in with them from time to time to see how they're doing, and they'll send an e-mail or instant message about something they have a question about." Although technology enables more communication than previously possible, it also can

prevent him from discussing teaching online. "If somebody's not online, I can't talk to them. . . or if they're not at school, then I can't walk down the hall and talk to them."

His personal network discussed how they prefer to learn about new teaching online ideas. "We have a hard time in the (discipline) department with classes that aren't formulas on a chalkboard. That's what we're used to. So we tend to, you know, the seminars and stuff that we go too, like over at the Faculty Center for Teaching and Learning and Course Development and Web Services. . . it seems like a lot of us in the (discipline) department. . . we just don't process it the same way as we would a regular formula on a chalkboard-type class. . . We're used to acquiring information by listening to a professor talk about (discipline), accompanied by equations on a chalkboard, and not a whole lot of discussion. . . So the professor talks and maybe we ask questions, but it's not like in an IDL6543 class where there's a lot of back and forth. In addition, the language is drastically different. Over in CDWS, the language is drastically different from what we use when we talk about teaching. But we don't talk about objectives, assessments, goals. There's a lot of jargon that keeps us in the dark. . . the jargon stuff about goals and objectives and stuff is valuable once we figure out what the heck they're talking about."

When learning about new teaching online ideas, John likes to "just screw around with stuff" to decide whether or not to use it. Before he considers adopting a new idea, "it has to be solid. It has to be usable as a tool, something that's experimental I'm not going to use until I'm confident that the students will be able to use it without screwing up. For instance, in WebCT, when I started that last year, last autumn, I did not use the quiz tool until a little bit later in the semester. But eventually I figured out how to use it.

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When I started WebCT, I only wanted to use it so I could post my grades. I didn't use it

for Web, for mail. I had another e-mail account on EarthLink that I used for that, but I've

since gone to course mail only. But when I first started I just used it for posting grades.

And then I figured out how. . . There's all manner of unused quizzes in WebCT that I

messed around with to see how it worked, and then I said, 'Okay, I still don't know what

I'm doing. . . . There was all kinds of false starts. . . So that's what I do. I experiment

with stuff, and if I think I can use it reliably. . . The whole reason I wanted to use

WebCT is because the students trusted it. They knew how to use it, and they trusted it,

and I found that it was solid and it's not as versatile as I would like. But it is solid. It is

reliable. It doesn't fall apart at the drop of a hat. And I've had stuff that has started to

drop, like this classroom response system. . . . But in a class of three hundred, no, you

have to have reliable tools. It was not yet a tool. . . The worst part was I lost a lot of

teaching time, huge amount of teaching time to it. It was definitely not worth the gamble,

but if it had been me, I would have made sure that it was working much more reliably

before giving it to the other instructors. Someone else made the decision. . . I never

reached a state of confidence where, see, if I'm going to tell a student, I've got to be able

to try the system out and know exactly how it's going to operate in all circumstances, and

that way, if the student has a problem, I know what to tell them. . . and if I can't get to

that point where I know or I'm 90% of the way to that point, I don't want to use it. I

don't use it."

John defines a tool as "something that helps students see things, visualize. I know

we have an alphabet, so that works good. Works good with the text and those are tools,

but the hard part is having students visualize something so they get to see it instead of read about it in the text. So that tends to be where I spend a lot of time developing."

When asked how discussions about teaching online influence his perceptions and decisions about teaching and learning, John mentions "(colleague)'s case study grading technique. . . . it's a way of assigning a multiple set of several writing assignments for a large section and having the work be subdivided so that it could be graded efficiently and thoroughly. Another thing that I tried to adopt but was unsuccessful was, [the director] over in FCTL, she told me, or I was in a session last winter, I think Winter Conference last year, and she had a talk about learning styles. She had a learning styles inventory on paper that she gave her students. It's the auditory, visual, and kinesthetic, I think. . . I decided. . . I think that would be good for the students to know about, so I tried to make a survey where I could get the students' score. . . . but then I don't know who's doing what. I tried to set it up as a quiz, but it was. . . awkward. So I've not successfully been able to figure out a way to do that. Now, maybe there's another technology here on campus that would let me do that. . . Another thing that I learned about by just looking at a Web site. . . I learned in IDL6543 about turnitin.com, and I registered for that this semester, and when I started using it, it was good. Works nicely. As I was reading their Web site, I noticed that they have this other service called Grade Mark. And I decided I would like to try that. I found out that we don't have a license for it here. I asked them for a demonstration account. . . using that for grading student writing assignments without having to deal with papers. . . . now we're using this Grade Mark, which allows us to grade them online. It's really nice. . . They'll be able to see their stuff. In fact, I was just talking with students about that before I came over here. . . Grade Mark. . .

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takes everything, everybody can grade it and it can be graded by me or by my TA, just like that, no matter if they hand it in. . . as PDF, HTML, Microsoft Word, plain text, RTF, you know, all different. So anyway, so that's one I learned about just by reading it on their Web site, and I thought, "Okay, that sounds cool. Let me try that."

Textural and Structural Personal Network Description of p35 – Michelle

Michelle is "in my third year of full-time higher ed teaching." She prefers an informal, "face-to-face mode" because she uses "discussion in class, rather than formal lecturing. . . Quite Socratic."

Like both James and John, Michelle began teaching online due to a university decision. Her face-to-face teaching style relies "very much on discussion and thinking-on-my-feet teaching." The instructional methods required to facilitate "asynchronous discussions" and prepare "well-planned written lectures" differ greatly from her preferred face-to-face techniques.

She describes herself as "always keen to try new things; i.e. I'm naturally quite adventurous and enjoy new challenges." Her "'give it a whirl' philosophy" indicates she may see herself as an innovator, willing to "give it a try, and see if it works, as long as it seems plausible and relevant to begin with." Perhaps her positive approach to change helps explain Michelle's technology skills being "more clued-up than average," but not "a technology whiz kid."
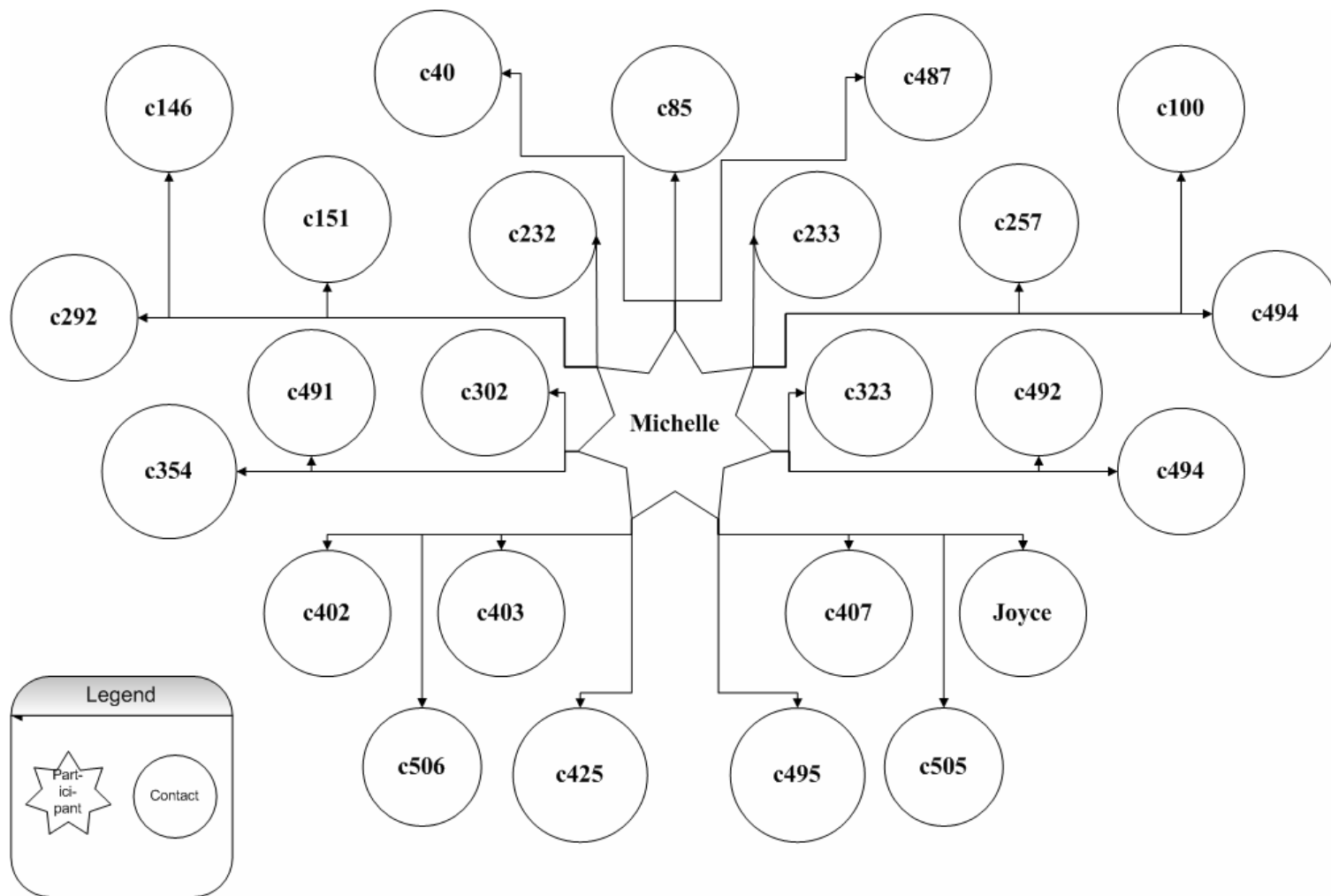
Figure 5: Personal Network Model of p35 – Michelle

Her personal network (see Figure 5) includes "people in the same department, but more often it's people from other departments and even other colleges who share my office suite" on a regional campus. She speculates they share similar educational backgrounds, however, is uncertain about whether they share similar teaching philosophies and/or experiences. "It's hard to know exactly where we agree or differ as we haven't talked about such things in great depth. However, we do share various experiences, especially re: difficult students."

Her relationship with these faculty members tends to be both professional and personal. She prefers discussing teaching online with faculty with whom she has established a personal relationship "because I don't feel judged and I trust that I can say what I think without being on my guard." Michelle finds discussions with personal and professional colleagues to be "equally influential." Her personal relationships provide her opportunities to "complain," while professional relationships offer "constructive advice." Due to her dual relationships, Michelle also finds herself often both the sender and receiver of new ideas about teaching online.

Michelle "prefers to talk face-to-face." So, her discussions generally occur "face-to-face. . . during" work hours "probably once a week at the most." Although her work hours "really vary" because she doesn't "have a fixed schedule," Michelle considers her "average" work hours to be "somewhere between 10:00 and 6:00."

Discussions about teaching online with other faculty member(s) typically occur as a means of "moral support." She speculates she discusses teaching online "more, because I'm new to it and want to share stories with colleagues. I tend to talk about it much more when I'm having a problem with it than when things are going well. I seek

moral support." However, she does not discuss teaching online when "not wanting to talk shop."

Michelle prefers to see new teaching online ideas "demonstrated" when learning about them. Several factors influence her when deciding about new teaching online ideas: "How time-consuming is it, could it fit in well to my course, and is it really helpful as a teaching tool or just a gimmick?" She is motivated to try a new idea "if it's time-saving and helpful I'll use it." However, "if it is very 'fiddly' or high-maintenance or takes up lots of time I'm much less likely to use it."

A few examples of online teaching ideas Michelle has adopted based on discussion about teaching online with other UCF faculty are: "posting grading criteria and rubrics online, limiting the days that I tell the students I'll log in, so they don't expect me to be 'on call' 24/7, telling the students how long they can expect to wait to get a grade/response."

Textural and Structural Personal Network Description of p40 – Lisa

Lisa has "only taught higher ed" and loves teaching online. Because she knows "students learn in different ways," she offers "them different ways of learning." Her personal learning philosophy is "we all learn more by doing. . . So I try to give them as much activities as they can actually do. But it's hard online. . ." An example of one of her instructional strategies for a course about correctional institutions is to have the students "lock themselves in a room for eight hours. . . They're allowed out three times to go to the bathroom. They're allowed out once for half an hour to eat. They're only allowed to have drinks. They have to shut off all their phones, TV's, computers. . . So in other words, kind of get into the real-life."

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In addition to providing students with "different options and ways to learn," Lisa tries "to evaluate them different ways, by writing or multiple choice questions. I have different types of tests." She also creates interactive discussions and live chats in which students must participate, and these are graded. "They have specific separate assignments that they have to do on their own. And then we have tests every week or several throughout the semester. Not all instructors agree with that at the graduate level, but I've used them enough now that I think they're important. . ." In addition, because so many of Lisa's students are law enforcement officers, she always offers "the option to make up a test or a chat. Chats are a way to have direct contact with me and know that I'm a real live person out here."

Lisa describes herself as "an older person (sixty-one years old)" who "started teaching in 1993" at another university "with my Master's degree, which was very unusual," but she "was actually working at (university). . . for eighteen years. . ." before that. At the time she began teaching, Lisa worked in the university's computer lab, learning "all kinds of neat things to do on the computer." However, her first experience with course content delivered through a computer was in 1973 when she took a course toward her bachelor's degree as a part-time adult learner. "We all sat in this room where all these computers were and we took this course. . . back when screens were orange and black or whatever the colors were." Although Lisa and other students loved computer-delivered courses, the concept may have been too advanced for its time because "you didn't see computers for fifteen years. The whole concept kind of disappeared."

She considers her technology skills "pretty good. I'm not afraid of the computer." As a help desk person at the other university, Lisa "had to answer all kinds of questions.

And if I didn't know the answer, I had to find it. So I got pretty good at if I can't figure this out, I can find it, which I personally think is an advantage. . . " When considering implementing change, Lisa collects information and, if it makes sense, tries the new idea. Her early experience with computers empowered Lisa as an innovator in online teaching. "So I began to implement it in the classroom back in '93 before they even knew what was going on. . . I began to e-mail students their lessons. . . I began to make Web pages for faculty."

Lisa graduated with her Ph.D. in 2002, 29 years after beginning. She understands "what it's like to be a parent, a student, and I know what it's like to teach." In addition, she has taught online courses for at least six other universities, giving her a diversity of experience in higher education environments. Lisa sums it up by saying "I just really enjoy it and what I like about it is teaching adults." To create a personal atmosphere, Lisa posts personal pictures in WebCT and encourages students to do the same "because I think that gives them a real sense of there's a real person out there." Even creating a personal atmosphere does not necessarily make up for the loss of "body language, which is one way we kind of size another person up." However, Lisa suggests you can learn as much about someone's personality "through writing," especially online. One of her favorite sources for feedback about her courses is the students. "I really depend on the adults, I mean, as you know, adults are pretty good at telling us what we do wrong." Her students consider her a "fair teacher, but not necessarily easy."

Lisa teaches in the same department and program as most of the UCF faculty with whom she discusses teaching online (see Figure 6). She finds "people often come to me for advice. Although as more and more people do it online, . . . we're all coming up with

pretty neat ideas." In addition, Lisa meets people through other curricular activities, such as when she evaluates schools' credits for a national accreditation organization. "So what's neat about that is I meet all kinds of people and we get to talking about teaching online." Although she works out of her home and not in close physical proximity to the faculty with whom she discusses teaching online, Lisa does not see that as an issue.
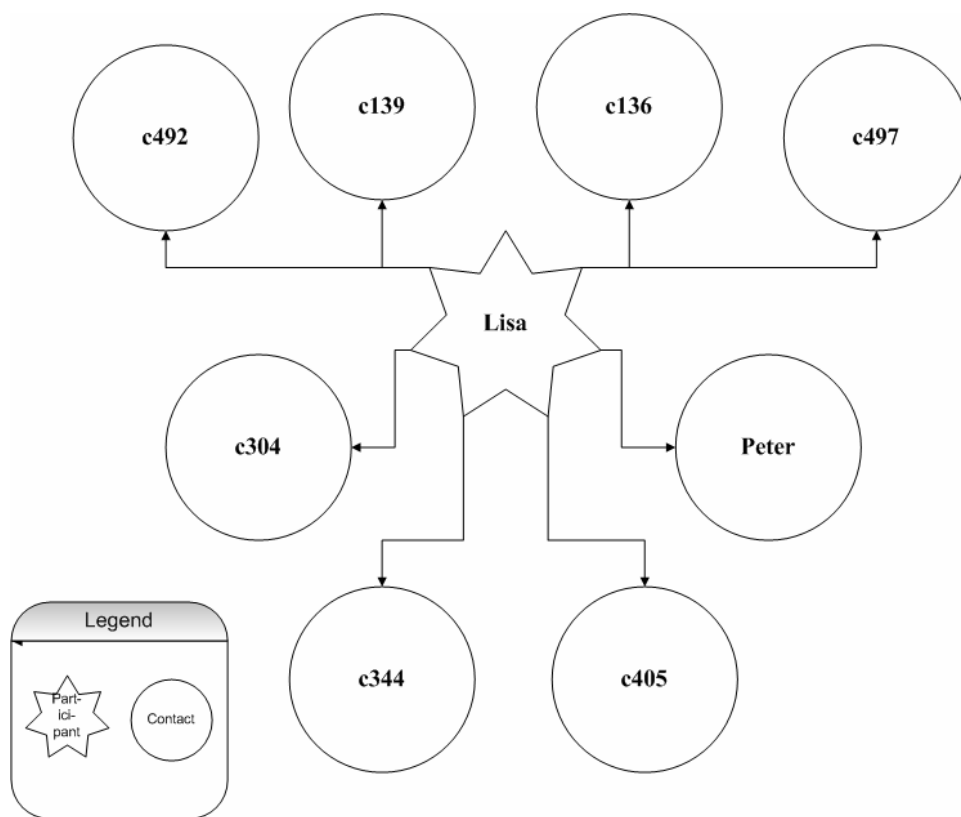
Figure 6: Personal Network Model of p40 – Lisa

In many ways, Lisa feels the faculty at UCF with whom she discusses teaching online share similar educational backgrounds "because I've worked with a lot of adults and people who finish their degree later." In addition, she's "willing to work with all

different aspects or all different levels because I learn from them too." Lisa also speculates they share similar teaching philosophies.

For her, some of these relationships "are professional only," while others are "probably personal and professional both." Lisa theorizes "if you talk to people enough, you get to know them" personally. She finds "the more personal a relationship is, I'm more likely to call them and talk to them about teaching online." Perhaps that is why Lisa thinks personal relationships influence her more.

Most of Lisa's discussions are "probably. . . by e-mail, but that's my preference. However, there are times when you do have to use the telephone. Occasionally, it's really helpful to do face-to-face. See, I still prefer the e-mail, I guess. Face-to-face is really nice, but it's kind of impossible in our world today. . . So I really prefer e-mail, but I do use the other two. The telephone, I do like to do conference calls when I'm training. . . So I do like the conference calls on a regular basis, but it doesn't have to be--certainly not weekly -- that's too much. Not even monthly -- maybe quarterly or something. In other words, I think face-to-face and telephone are still important, but that's not my top choice. I usually e-mail mostly." Other than her training conference calls, Lisa estimates typically discussing teaching online "three or four times a week is probably good. It varies by school. Some schools I don't hear from them for weeks. . . Other schools call me every day."

Like most faculty interviewed for the study, Lisa's work hours vary based on course load each semester. "I usually start about eight in the morning and work until about three, straight through. . . And then at three we often either go swimming or have a nap, or I just take a break. . . Then I often just sleep for a couple hours. And then I get

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up, and I usually start working again about six, and I work until minimum eleven at night,

quite often two or three in the morning, which is why I always need my nap. Now

tonight, I teach live, so what I will do is have an early nap today and then I teach tonight

live, and then when I come home from that, I have an online chat that runs until ten-thirty

tonight. And then after that I'm usually pretty tired because I've taught live. But I

probably put in sixteen hours a day. . . weekends as well. . . On some weekends we go

out and do things, on Saturday or Sunday, and we usually try to at least go to church

together. But on Sunday night, in fact, I have four live chats, Sunday night, right back-

to-back from six to ten because I've learned Sunday night is a good night to get them all

together."

Because her work hours are spread out through the day, Lisa typically discusses

teaching online more during work hours. "I think that a lot of people that work all day at

another job often come home and do this online teaching because it's not uncommon for

me to get an e-mail eleven or twelve at night that I need to talk to you immediately. I

have to ask you this question. And I'm usually here to answer it. And then they say,

'And what are you doing up?' And then I ask, 'What are you doing up?'"

Lisa thinks her experience teaching online has affected the frequency of her

discussions. "My first reaction is I don't discuss as much because I pretty much know

what I'm doing. The only time I do discussions is generally for putting on new stuff,

which is actually constantly. That's why I'm kind of struggling with the question. . . So

it's kind of an ongoing thing. Probably, in fact, it may have increased because I'm doing

so much. I mean, that's like completely opposite from what I said at the beginning." In

addition, in her role as lead instructor for another educational institution, Lisa discusses

teaching online more when new instructors are hired. "As they gain more confidence, my discussions with them typically decrease."

Her discussions about teaching online with other faculty members "typically" occur to address a problem. However, teaching online for multiple educational institutions inhibits her ability to discuss teaching online more with other UCF faculty. "For example, I don't discuss teaching online with other schools with people at UCF because they might frown on all my work that I'm doing. So I tend to talk to people. . . about issues. Although, if it has to do with UCF, then I do. And I do that at faculty meetings in Orlando, like every other month. . . last time I sat beside a guy who teaches on site. . . He's an older faculty member who thinks online is not needed, not important. We should not be doing it. And we just sat and talked about it. . . I like to get his ideas and, of course, I'm slowly trying to convince him how important I think online is and why I think it should be important."

Lisa "likes to see" new teaching online ideas "demonstrated" when learning about them. "You know what I'm doing is I'm trying to find new ways to make learning fun. I think the more fun things are, the more positive things are. . . the more likely we're all to learn. I mean, I try to do that on my on site courses, too. I try to make the learning fun so that they look forward to coming to class. It's just pretty hard to do sometimes."

Ease of doing something most influences her decisions about new teaching online ideas. "Is it doable? If we can teach the students how to use them. I don't like to put things out there that are just so confusing they'll get discouraged. I like to use things that are interesting to them, that are fairly easy to use. . . I like to make things as easy and

simple as possible and still be on the level that I'm supposed to be teaching, whether it's undergraduate or grad."

Technology can inhibit Lisa's trial of new teaching online ideas. "I could have my husband do a little video of me, and I could talk, and I could send it to one of the schools and they could put it on, but I don't want to do that unless (a) the students can get into it and (b) it's useful to the class. You know, I don't want to just put ideas in for the sake of a new idea. It has to be incorporated into the academic learning."

Lisa recalled several examples of teaching online ideas resulting from her discussions with other faculty members. "As I said, I just talked to one the other night. . . I told her about putting pictures on, and she liked that idea. I think the more you talk to them and the more that you try different things, you learn some more ideas. . . I have (discipline) discussion questions I've put in. . . I probably got these ideas from somebody else. I have other areas for the students to discuss things. In other words, there's the course material, and then I have this area called "Coffee House" or "Discussion for Students" . . . They can go in there and talk about anything they want . . . I often encourage them to post their papers or post their references, and learn ideas from other students, and that's worked out pretty well. I'm not even sure where I got that idea. . . it's kind of a place for them to be free and talk about whatever. You know, I read it. And sometimes I answer, but most of the time I just let them chitchat among themselves. They post articles, they post news articles and they talk about friends, and I just monitor it so it doesn't get out of control. . . I learned about the importance of chats from a school that I taught at before. I'm not sure that I would have selected chats. Some people think they're kind of wild and unruly, but my chats are under my control as far as what we're

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going to talk about. They have a topic each week that they have to research before they come to the chat, and I learned that from another school. I'm very clear on what they have to do for that chat that night because otherwise it's a free for all, and it's not a learning experience, but I've gotten better at making it really specific. And those are all things I picked up from other places."

Textural and Structural Personal Network Description of p98 – Debbie

Debbie "first taught as a graduate student." She began teaching composition, then "took up the literature aspect as well." When her husband was offered a position at UCF, Debbie became an adjunct faculty member, eventually becoming "an instructor." She's been teaching courses in a mixed mode format for approximately a year and a half. "And I finally feel like I'm getting the hang of the pedagogy. Sometimes it's too technical, but I feel I'm getting better at this pedagogy, or the way to get them engaged and allow them to actually learn something instead of actually going through the motions." Although she "wasn't as pleased with my online teaching as I was with my face-to-face teaching" when she first started, Debbie suggests by teaching online more often and becoming more successful "at creating community," her online teaching continues to improve.

Although Debbie enjoys teaching mixed mode courses partly because this instructional delivery method is "delightfully convenient," she does not "have a preference" for teaching face-to-face or mixed mode courses. However, she theorizes a fully online course would diminish from "the "book club" aspect of sitting around and talking about the book." Although she has noticed a sense of community in some of her mixed mode courses, Debbie finds it "interesting how sometimes there is just a stronger face-to-face bond."

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Debbie approaches change reluctantly; "in general, I'm the last person to try out new things." However, wanting to be a team player and seeing advantages to the support UCF provides synchronous and asynchronous Internet-based faculty, she volunteered to learn to teach online courses. In UCF's professional development course, IDL6543, faculty are encouraged to meet and discuss with other faculty their experiences teaching mixed mode or fully online courses. Naturally, Debbie took advantage of this by asking "everybody else, "What are you doing?"

She considers herself a "slow learner," so does not reject new ideas "based on one or two experiments." In addition, she does not "have a gift for technology at all." So if she consistently has "a really bad experience with it," Debbie eventually rejects the new idea. However, with patience and the support she receives at UCF, Debbie has successfully incorporated new teaching ideas into her mixed mode courses.

Debbie describes her personal network (see Figure 7) as "strictly professional" with most of them "sort of like work friends. . . I've seen almost none of them outside of work." She considers her husband, another UCF faculty member, her "original mentor."

As an instructor, Debbie is "kind of, hierarchically, at the bottom." However, teaching online, she finds "we help each other out more." In addition, she finds through interactions with other faculty groups on campus, such as the Faculty Center for Teaching and Learning (FCTL), she's "gotten some real good advice on teaching online."

Although she does not necessarily share their teaching philosophies, Debbie "still uses their methods." Her "office is close to some and not to others. But that, I would say, has very little to do with whether or not I would ask those people" for advice about

teaching online. As a novice to teaching online, Debbie says she "definitely is a

receiver" because she "just feels that way."
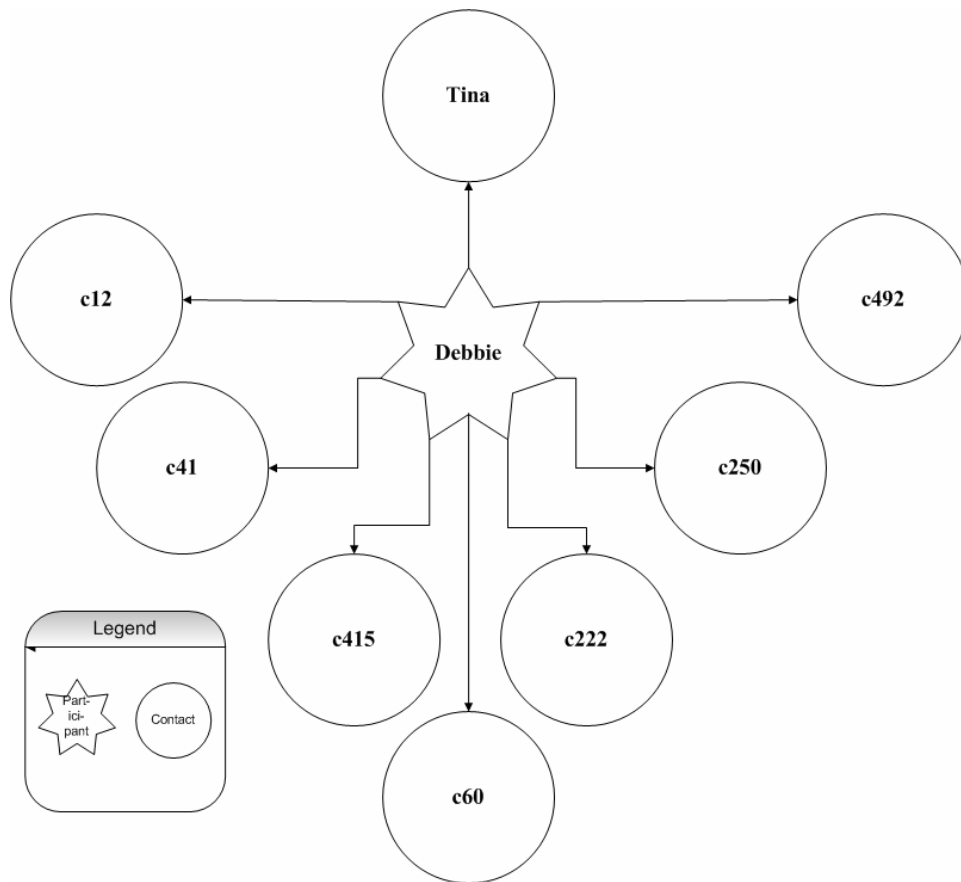
Figure 7: Personal Network Model of p98 – Debbie

"Most of the time," Debbie's discussions about teaching online with other faculty

members tend to be "face-to-face," matching her preference. Due to her comfort level

with teaching online, she does not discuss it as much. "I guess if I had any huge

problems with it I would be talking about it more." Starting discussions with members of

her personal network are "not at all" a problem. "I mean, it's easy with people that I

listed as my contacts. I would see if anyone in the community wants to talk."

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Most of her discussions occur "definitely during work hours because most of the conversations I've had have just been sort of between 9:00 to 5:00, you know, like meetings and walking across campus to class. Because so many people from this building walk to class together or at the same time. And if I see a colleague after hours, it's normally outside work, more of a social occasion."

Her discussions tend to be informal "most of the time. . . I go to the (FCTL) Teaching Circles because I get good ideas from them. But I don't really go there for a particular problem. We often just kind of merge." Typically, teaching online "just kind of comes up in conversation." Debbie thinks "it's hard to talk about that through e-mail and telephone calls. It's kind of casual. . . I wouldn't usually go to people with problems. I have done that. . . when I'm just getting a new course, I say, "How do you do your course?" I did that once when I started my new career. . . If I had more time, I would talk to faculty more about how to teach online. If I need advice, I definitely make time."

When asked how she prefers to learn about new teaching online ideas, Debbie said "I don't prefer to read about them. I prefer to see them demonstrated or hear about them. Oddly, what influences me most is probably efficiency. But also, the reassurance from the faculty member that this method is going to work. Someone could say, 'I tried this, and here's the results, and here's the responses that I've gotten. This is what my students did with this.' And so that would convince me."

"Fear of technology would be a big inhibiter" keeping Debbie from trying new ideas. "Motivation would be student success" is how Debbie describes why she would try new ideas.

When asked about how her discussions influenced her perceptions and decisions about teaching and learning, Debbie talks about "group work and group projects" ideas, which "I haven't actually tried yet, but I really liked her ideas. Also, tips about WebCT multiple choice tests, and opening discussions so that others can see it. . . we're always going back and forth about managing discussion groups. And she gave me a discussion rubric which is great. . . a grading discussion rubric. . . gives me some really good cautionary tales about what not to do, so like, 'don't do more than you can handle' cause she has like 300 students and had them all posting and things got crazy. . . I'm probably not your best subject because I haven't been doing this for real long. . . I think this semester is the first semester I really found that the students were able to do as much work and get as much learning online as we would have gotten with face-to-face. So I'm probably more satisfied with teaching online now."

Textural and Structural Personal Network Description of p124 – Ruth

Ruth began teaching in 1972 when she "was twenty years old." Her first teaching position was "teaching English as a second language to high school kids" overseas. After a few years of teaching overseas, Ruth returned "to the States and didn't teach again until 1992 when I became a staff member in the Humanities Department at my former institution." In addition to teaching a class every semester at her former institution, she "was the tech support gal," as well as "an academic adviser." Although the responsibilities of the position were very diverse, Ruth says her "classroom teaching experience really began at that point." She began a tenure track faculty position at UCF in 1999 "after I finished my degree."

Ruth constructs a "collaboration-type classroom" because she likes "students to be in charge of their own learning." Although she admits "it doesn't always work out that way," Ruth also realizes her instructional approach works "better in classes where they want to know the stuff, like the material, like me, like each other. That happens a lot in graduate classes, and I'm fortunate enough to be able to teach master's and doctorate students."

She "started teaching online because it seemed like the thing to do at UCF." At the time, Ruth "was tired of my techniques" and "was strongly urged by my chair at the time to teach online because she defined me as someone who had the skills, the technical skills, and background to be able to do it successfully." Yet, she initially was "a little bit hesitant" about teaching online because of the lack of face-to-face contact and her concern she "couldn't have the same kind of relationship with them." Ruth found the "first few years were rough. I thought it was really, really hard to use those teaching techniques online. I think teaching (discipline) online is a particularly complicated, labor-intensive effort because you can't use many of the ordinary tools that make teaching successful."

Ruth also continues to struggle with creating "an interactive class in the WebCT." She theorizes the pre-planning required to make an online course successful makes it difficult to be "interactive or as spontaneous." However, now that Ruth has more experience teaching online, she sometimes finds herself in the middle or at the end of the semester thinking "Why didn't I do this all online or all face-to-face?" Her preference is "face-to-face or all online" courses rather than mixed mode.

Originally a self-proclaimed early adopter, Ruth focused more on teaching and publishing during her tenure process at UCF than on staying current with technology to deliver online courses. Now that she has received tenure, she plans to start "learning some new tricks." For example, next semester, Ruth is teaching two sections of the same class; "one is online, and one is face-to-face. So I'm working on how to balance that. I don't want the two classes going in completely opposite directions because of the accommodations and constraints of the two different modes. So it's going to be interesting."

Like Debbie, Ruth's personal network (see Figure 8) is primarily comprised of faculty with whom she shares professional relationships. As "a faculty fellow," she finds "people over there (at the Faculty Center for Teaching and Learning) are talking about teaching and learning all the time." In addition, Ruth volunteered to teach "a class for our doctoral students" about teaching online because she "really feels strongly that they need to know this stuff." Through this class, she does "a lot of mentoring of the doctoral students."

Although she does not "officially mentor my colleagues," Ruth finds their discussions "fun and interesting. And I learn a lot from them. I don't think offices need to be close to one another. e-mail is faster." In addition, Ruth tries to assist "instructors or adjuncts" who may "feel like they don't have anybody to talk to. Their focus is totally on teaching and not on research. So they find it hard sometimes to talk to the tenure
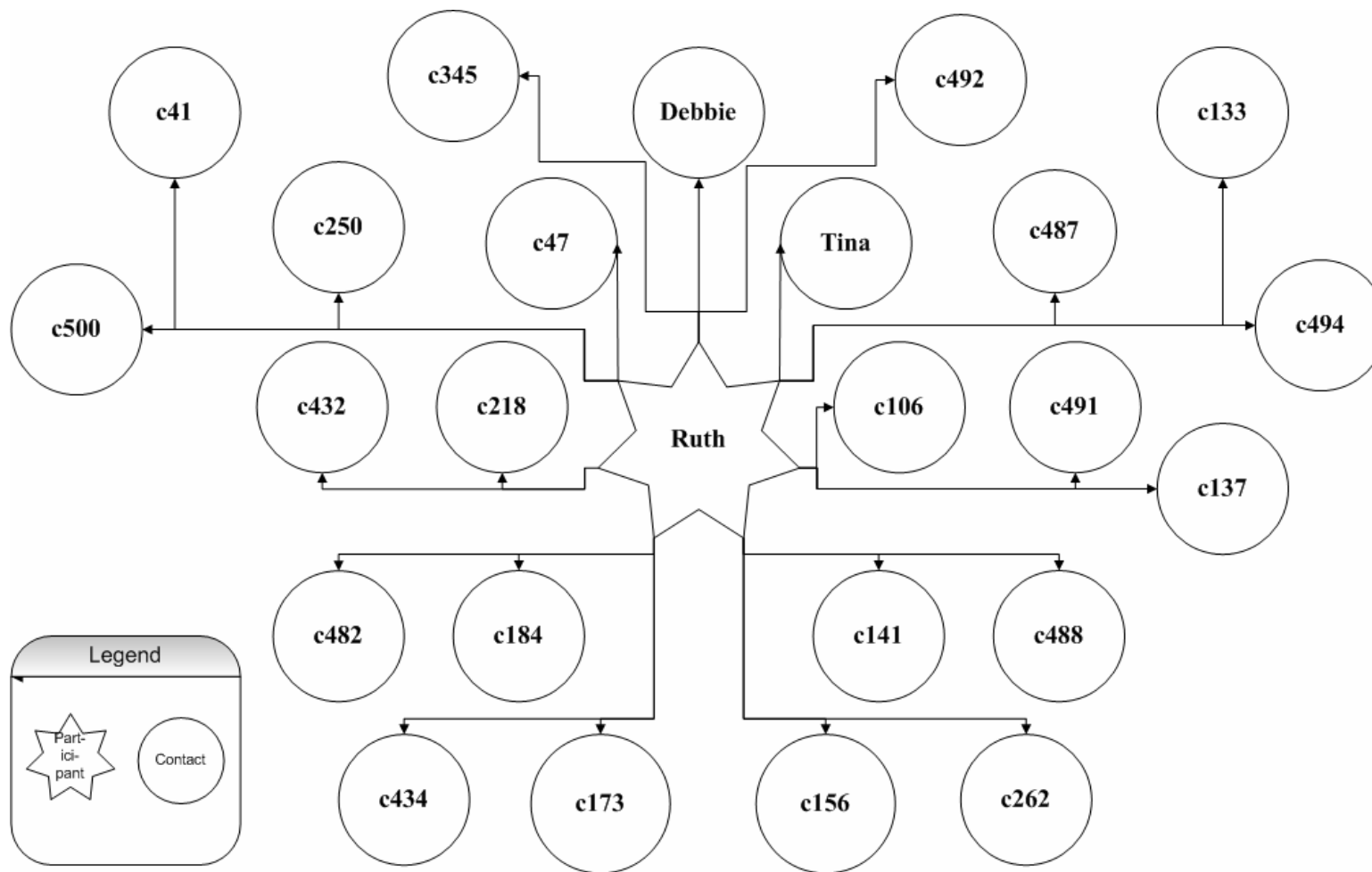
Figure 8: Personal Network Model of p124 – Ruth

faculty. . . Having been an adjunct, I'm pretty sympathetic to that sort of weird position. . . . I try to be easy to talk to, agreeable and interested in everything, not just high level research."

In addition to workshops, Ruth has "a couple of friends" from whom she seeks advice. "So I go to them for technical help. But I don't know if I provide any more information than I get from people because people tend to ask me questions, and in the course of back and forth, we resolve the problems." Ruth's philosophy is "you just never know where you're going to get an idea from. I feel like I can be just one of those people with big ears and big eyes, all observing and absorbing information and thinking about how it might work in research, work in teaching, or work in my hobby."

Ruth suggests "e-mail is a good way to discuss teaching online, as well as face-to-face." Both are her preferred methods for discussions with members of her personal network. "I hardly ever talk on the phone. In fact, I usually get yelled at because I'm not calling him to remind him to do something. I e-mail him. 'Call you?' . . . definitely, face-to-face and e-mail."

Her work hours are frequently "5:30 a.m. until 10:00 p.m." so most of her discussions occur "probably during. . . I check my e-mail at 5:30 in the morning and again before I go to bed at night at 10:00 or 10:30, and weekends." Ruth discusses teaching online "daily at least, but it might not be with the same people every day. . . It's just usually daily and several times a day, average. . . So I'm learning things about teaching."

When she has a "problem" or an "issue" or "a blank space on my calendar that I have to fill with something," Ruth discusses teaching online with members of her

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personal network. However, "one of the things that prevents me from asking for help is to ask something that would put somebody on the spot if I were to ask them. It doesn't seem to bother other people, but it bothers me a lot. So a lot of times I don't ask for help."

Ruth conceives she's "become more conscious of my assessments. I think I accept more holistically and without as much detail than when I was teaching face-to-face. Part of that is when you teach (discipline). . . I have students revise and revise and revise and revise until they get something that's acceptable. . . all that really back and forth discussion. Whereas now, when I'm working with students online, where I don't see them face-to-face, I have to have articulated criteria and point value so they can really see through the Web the expression on my face and the tone of my voice. . . In these classes that I'm teaching in the spring, I'm working on methods of doing virtual peer review that are tied very closely to assessments. And I have a wonderful book called Virtual Peer Review that somebody from the University of Minnesota wrote, and I'm going to use it as sort of my Bible for that, follow some of her methods and try to make that more efficient and try to look at how it works differently for face-to-face classes versus the online classes. That'll be my research for next semester."

When learning about new teaching online ideas, Ruth "takes things wherever I can get them. I don't really use tools. You never know where an idea is going to come from. Seeing them demonstrated. This past year I attended several of those all-day workshops over at Research Park. Those were wonderful. The most recent one where we looked at wikis and blogs, so much fun. . . I use wikis as a tool for collaboration with some of my friends, and it hasn't been as successful, but I just think I need to go back and

get some remedial instruction on how to give people permission to add and edit. I want

to learn about social bookmarking and creating my social bookmarking space but I

haven't really played around with it. So I hear about things and find out how other

people are using them, and then I try to apply them myself, and then I implement them in

the classroom. . . But the biggest influence, I think, is that it works for somebody else,

and that they were able to use it successfully in their class, and then I try to figure out

how that fits in with what I want to do and how I can make it fit with my particular style.

Then motivation, the inhibitions about trying new teaching ideas is time. Time to really

experiment with the stuff and all the motivation. It's kind of fun. I used to be an early

adapter, and I'm trying to re-geekify myself. . . Here's an idea. I don't know if this is for

online teaching, but one of my friends habitually uses literature in her (discipline) classes,

not for literary value but for providing concepts for" assignments. . . Well, next semester

there's going to be a campus-wide book. . . A wonderful story about a college professor

whose younger sister is retarded. And I'm teaching (discipline), and there are several

concepts within that book that work for, or work in context for, examining professional

(discipline skill). . . So I'm going to use that book next semester both in the online and in

face-to-face as kind of an experiment and see somehow if literature as a concept works

for me. . . What influences me most? I have to think about my own energy, my strengths,

and weaknesses. One of my weaknesses is that I'm overcommitted, and I can't really

have too many activities that I have to grade because I don't have time to do it; and then

everybody gets mad at me, and then I get mad at myself because I'm not keeping up

when, in fact, it's my own course design. And so that's one of the things is that I don't

have time. . . It's also very frustrating because there is a lot of cool stuff out there to try,

and I only teach five classes a year. This year I'm only teaching four, so I'm just limited.

You're limited and you think 'By the time I get around to trying something, it's

obsolete.'"

Textural and Structural Personal Network Description of p140 – Emily

Emily began teaching in the public school system, teaching "at every level of

education," spending most of her "teaching time in secondary, mostly middle school."

She began teaching in higher education eight years ago.

She very much prefers teaching "face-to-face" due to the "interaction." Her

instructional approach tends to be "more constructivist," discussing "strategies in a very

collaborative" manner. Emily has "learned to appreciate how technology can be assistive

with specific learning outcomes and learning goals," as well as provide "the opportunity

to interact in a real personal way through an online environment." Although she

appreciates some of the advantages online offers, Emily still "very much" prefers mixed

mode to fully online. She likes "the way face-to-face complements the online. So that I

can go deeper with some of the online, both presentation work and certainly discussions."

Her students appear to feel the same way, indicating in their feedback this year (2005)

"they liked it in the mixed mode but they even wanted more face-to-face classes."

Emily has "done a lot of reading about change" and theorizes "change and

education go hand-in-hand. That's the purpose of education is to look at what we're

currently doing and make informed decisions or look at a problem and then collect an

answer." Although she likes to think out of the box, Emily does not consider herself an

innovator. Rather, she prefers collaborating with others when she works "through the

change process because I'm a very oral learner and thinker.' Emily also likes "to try

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something out before I decide whether or not to reject it." In addition, she looks "at the impact" and decides "whether or not it's something that I keep and that it makes sense."

Initially, she "wasn't very open" to teaching online because she "didn't know enough to make any sound decisions" due to a "lack of information." In addition, her "technology skills are learn-it-as-you-go," making "a lot of technology. . . a huge mystery to me." However, similar to Debbie, Emily finds UCF's support system for synchronous and asynchronous Internet-based faculty to help her through the technology. "So my technology skills are better than they were. They're certainly enough for what I do, but I have so much more to learn, and I'm anxious to learn more about my technology skills, which I don't know if I could have said that a couple years back."

Also similar to others interviewed, Emily began teaching online because of a "department decision" to place "our entire master's course" online. "However, if I get any options, I will almost always go for the mixed mode/reduced-seat time." Through her online teaching experiences, Emily has become "much smarter about how I organize all my courses for content delivery, both face-to-face and M, and the project and the research they do." Due to the "very, very, very good feedback" she has received from the students, Emily says her online teaching "very much matches" her face-to-face instruction. "But like so many things, it goes back to the change process. Until you work with something and truly get a greater depth of understanding, that's when you really can expand."

Emily describes her relationship with faculty with whom she discusses teaching online as "okay" (see Figure 9). Generally, these relationships are "very, very collaboratively professional. . . and I want to think that they're at a personal level as

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well. That we care about each other as people and then as colleagues. Are we best friends? I don't know if I'd say that. . . We know each other on a personal level, you know, kids, those kinds of things."

Most of the individuals within Emily's personal network are faculty within her department and program with similar educational backgrounds, co-located within the same suite of offices. "We're all (discipline) as far as the backgrounds. . . But more importantly, we share similar teaching philosophies and experiences. We have different experiences, however, most of us are grounded in" the same discipline.
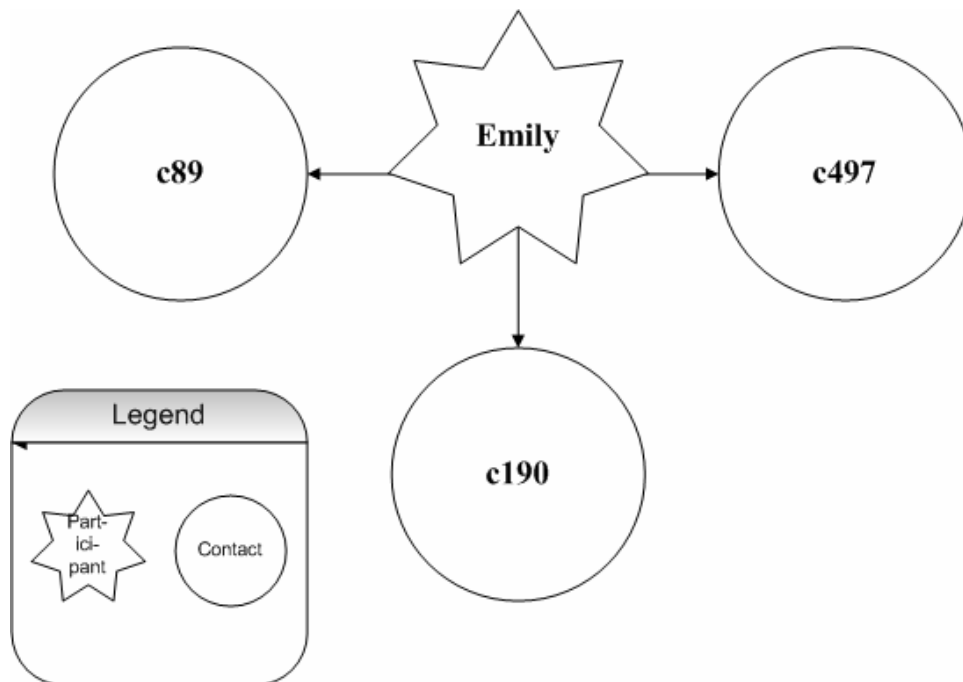
Figure 9: Personal Network Model of p140 - Emily

She describes the faculty members in her program as having "very wide abilities in technology." They are willing to share and assist "because we're a very collaborative work culture. . . it is okay to ask whatever questions you want." In addition to the collaborative work culture, Emily attributes their willingness to share information to their common belief "we're continuous learners and what one doesn't know, the other one might, and if the other person knows it, we're all very willing to share whatever we know."

Through this sharing and exchange, Emily theorizes she and the faculty members of her personal network influence one another's perceptions and decisions about teaching and learning. "We're always influencing each other's perceptions and decisions because if somebody has tried something with digital video and it seemed to really work. . . then we share it. We share each other's courses that we developed. We're always sharing ideas about that, and that's part of our own learning." In her discussions with members of her personal network, Emily suggests she is "a little bit" sender and receiver about teaching online. "I'm probably more receiver still, but I do have two or three good ideas. . . Two years ago I would have said I don't know anything. But I think it's getting closer. It's a match; it's equal, sending and receiving."

According to Emily, in her personal network, "if we have a problem, we talk about anything as long as we're here. . . face-to-face usually. Sometimes I'll e-mail somebody. . . I know, and there's a real quick answer. . . but I would much rather, for me, depending on the type of question. . . if it's a skill I have to learn, I would rather be at my computer and have somebody walk me through it a couple of times. That's why I go a lot to the open labs because I'll write down the problems, and either there's nobody

here that can help me with the questions, or they just don't have time, they would but they're running doing their own stuff too."

As with the other faculty members interviewed, Emily's work hours vary. "I start early in the morning, and I work until late at night, and I work Saturdays and Sundays too." So her discussions typically occur during work hours. "At the beginning of the semester, it's going to be more often, you know. It could be a couple times a week, at the beginning of the semester until I get up and rolling. Until I know my five procedures I'll need to know for the next couple of weeks. . . It varies. More at the beginning of the semester, more when I have questions." In addition, as she has gained more online teaching experience, Emily speculates her discussions have gone "down. . . well, maybe it's about the same, but I'm getting a deeper knowledge. I keep learning things about online, which is a good thing."

For Emily, discussions about teaching online occur because "usually there's something that you want to try to do or something that the department wants to do. . . it's very constructivist, usually around needs. . . I don't know that that's so bad. Because any more there's so much to know that I want to learn everything, but doggone it, we're all in such a 'need to know' basis, I think. . . We are running - which is the constant thing when you want to talk about professional development. . . We're teaching three or four classes. Some of our online classes have 30 to 40 to 50 people in them. So time can be a real issue" preventing discussions. "We're just so busy with teaching our classes. . . doing grading. We're with doctoral and, you know, different committee work, or we're running out to a school. So, it's difficult for a group of us ever to be here. So sometimes that's part of it. So it's 'catch-as-catch-can.'"

Emily has "got to see" new teaching online ideas "demonstrated. And then I've got to interact with them, and I've got to think about. . . I have to see them demonstrated. I have to see a couple of examples. Then, that spurs my thinking of 'oh.' I've got to see the context for the learning for it to make real sense. I'll be honest with you, I mean, that Course Development (CDWS), it was wonderful. But we need to go deeper faster. I need to come with my book and have them show me different things because it just, oh man, it took me forever to get up to speed. A part of it was me, but okay. I need, I'm a face-to-face. . . What influences me most? I have to know the support is there. . . that I'm not causing grief for other people. Because, again, I am a good teacher, and I want to learn this. But you've got to help me get through this phase, and I've got to know that I'm better and that there's more benefit for the students and for me, or I'm not going to do it. Exactly, what motivates or hinders you. . . if it is going to enhance the quality of instruction, if it enhances the quality and opportunities for student feedback or student interactions, if it enhances or provides further access to the professor and to each other, if it encourages students to go deeper with their reflections because they have more resources at their fingertips because they are better off by themselves with their computers, kind of, thinking things through. Then you betcha, I'm all over it. I will go to whatever Web course something I've got to do. If the feedback, if it's not, if I'm not seeing those outcomes, forget it. Or, if it causes grief for the students, bottom line, is it's about instructional process and for our students, both knowledge wise and affective wise. They don't need other issues."

"Give a few examples. . . Well, I would not even be doing this if not for (a department colleague) and (an instructional designer), and seeing what was possible. . .

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right now, (a department colleague) and two of the doctoral students, and I, this is very

fun, because you have to pretend that it's about getting the doctoral students involved, but

I'm really learning. And so it's worked out great. But, (a department colleague) and I

are going to be working on something with a case study methodology. So, we're going to

try to get electronic case studies up online so, which I'm going to, of course, use in my

classes and we want to get all CDs and online. I want to say like choose your own

adventure but, you know, as we do decision making with our students, so then keep

adding more and more data and information for them to use; digital video, case study,

reports after reports. . . So definitely, that will be the next challenge for me. I see the

possibilities, but I don't know how to do it. So I'm going to learn it with some doctoral

students. So that will be a lot of fun. But I think. . . bottom line, they'll have more

authentic information to work with, our students, our master's students. . . My video that

I'm going to take over to (an instructional designer). We had the most wonderful

speaker; the students, year after year, love her. . . I've got her on video, you know, some

five minutes of digital video, but I don't know what to do with it. . . This woman, she's

such a powerful speaker, that I don't want to lose that. And, so I want to make sure that

it's online, and that some kind of activity or something to go along with that. I'd like to

figure out how to do more with this. One of the assignments that I gave the students was

that they had to research and then come up with a brochure. And it was related to

(discipline), but, you know, they had to cite it, they had to have all this information, but

what I did was I had them post them on the discussion board so it gave them a framework

of what this is. Well, these are all teachers. They are asked all the time for new

information about X,Y, and Z. Those are the things and feedback that they gave me in

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my class this spring. I didn't know what X,Y, and Z was, but I looked. They say they love those brochures. So when a parent comes in or a principal comes in, because they're supposed to know all this information, but you can't. But they said those brochures were outstanding. So I guess it's about how. . . they can use public. . . what's out there, what's current in research, relate it to issues and questions that they have within their work setting, and then give them something that will be a usable authentic task and product that they can pick up online and that they can use. I never save these. I should save them. I should do something with them because they just do a great job with them. . . I didn't know I would like teaching online as much as I do, as long as it's media enhanced. I still am struggling with learning to be a teacher fully online. Still, that's a change. That's a thinking process that I'm still working on. . . I just think every once in a while you've got to have something in addition to hi tech-hi-touch. You've got to have interpersonal relationships too."

Textural and Structural Personal Network Description of p154 – Paul

Paul began teaching in 1992 at the "university level" as a graduate student. When he began graduate school in 1992, his program was planning online courses for the next year. So Paul began "teaching online in '93," developing most of his teaching online skills at his graduate university. He "really embraced" teaching online, even though they "started training and studying to do online teaching the year before we actually got computers." In addition, the focus of his faculty development was "definitely less about the technology and more about the conceptual or theoretical or practical ways of moving this forward." Perhaps this type of faculty development accounts for Paul's perceptions of his technology skills as "rudimentary."

He finds teaching online at UCF to be "pretty boring" because "it doesn't give students tools to, for example, do graphic work. It doesn't give them tools to make their own Web pages. It doesn't give them tools to mix audio and video or anything like that. It's simply a way of giving and collecting assignments, which isn't bad." However, Paul also sees the advantages of teaching online. He likes the ease of grading quizzes online and providing students links to interesting Web sites. In addition, he likes the fact students "come to it when they're ready, and all I see is the result."

He varies his instructional strategies based "on the situation," as long as it motivates the students. As much as possible, he tries to create activities enabling students to "actually do the things we're talking about rather than just looking at it." Due to the large content required for most of his online classes, Paul describes his instructional strategy as on the "default line of being teaching centered." In addition, student feedback has indicated "they get frustrated if I make it too student-centered because students say that their peers don't know enough and they're wasting their time." Until students feel comfortable with the content, he's reluctant "to turn things over to them." At this point in their course work, Paul sees himself as helping them grasp the concepts. Often toward "the end of every semester, two or three students" are "interested in doing more," so Paul will create a "really student-centered" study. "Then it can be more student-centered. . . Then I know I've got the foundation to build and I'll just start to build."

He's generally "adaptable" to change, however, tries "to teach the skeptical conservative kinds of objections to change as well, so I'm never a rah-rah cheerleader for it." Paul suggests the importance of knowing "if change is happening" and staying in front of it. "That way, if you're in the front, you have some chance of directing it." This

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approach to change also helps Paul maintain an innovator position within his field, "specifically, creating new practices for doing research and learning." He considers being innovative not necessarily "so much inventing something new but looking at suppressed traditions" as well. Although inventing is fun, "the hard part is persuading my colleagues to adopt any of the things that I come up with. . . students tend to change faster than someone who's invested twenty years in a career and done something routinely and it works." Many of his ideas for invention come from materials he reads or information he hears. After formulating his idea, Paul tests them in the online environment. "Sometimes it succeeds and sometimes not. I have to adjust, I guess, depending on the audience. . . What I find is, I wish in a face-to-face class, that I'd used online as a back-up more. . . I would like to be able to post something, for example, "In regards to the conversation we had today, here's a link." So I can do that with a mixed mode or a W class, but I can't do that face-to-face."

Paul describes his relationship with faculty members in his personal network (see Figure 10) as both "professional and personal. . . You might go over someone's house for wine or whatever." The faculty tend to be "from different programs" because he is "pretty interdisciplinary. . . I've done some online projects where I've worked with faculty and students. . . from" the arts and computer science. In addition, their educational philosophies and experiences, as well as physical office locations, may be different due to their different disciplines. However, Paul theorizes the differences are "where really interesting projects in teaching and learning come out. So we need more of that kind of thing. . . because that's where really great stuff happens and students love. . . if they can get involved in it."

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Similar to other faculty interviewed, Paul sees himself as both the sender and receiver in discussions about teaching online. "I think when it comes to kind of more say, avant-garde type projects, I'm usually the sender. When it comes to say, just managing a (discipline) class online, which is doing more or less conservative things not breaking any new ground there, I'll turn to my colleagues who have a lot of experience with that and say, 'How do you do it?'"

As "the colleges and the reorganizations keep changing things," Paul notices differences within his personal network: "things in the dynamic have changed because the personnel changed." He misses how they "used to do things where we would invite faculty into each other's classrooms. . . to teach for a few days or. . . to lead a section. The idea was that the faculty would learn from each other. So it wasn't that we had a similar background. We were trying to make strengths out of our differences."

As he studied the personal and social network models, Paul observed "the one perception I have is that it looked stable when I saw it on a piece of paper, . . . it's got those lines . . . it's printed and stuff, but I say it's pretty unstable. There's a lot of trim, and some of the lines are more solid than the other ones. So it's probably a very dynamic ever changing model. I'm sure that there are some people in the network who are more consistently nodes than others."

Paul theorizes the frequency of his discussions would increase if it were "easier for other teachers to join my classes online. . . I think collaborative teaching or visits like
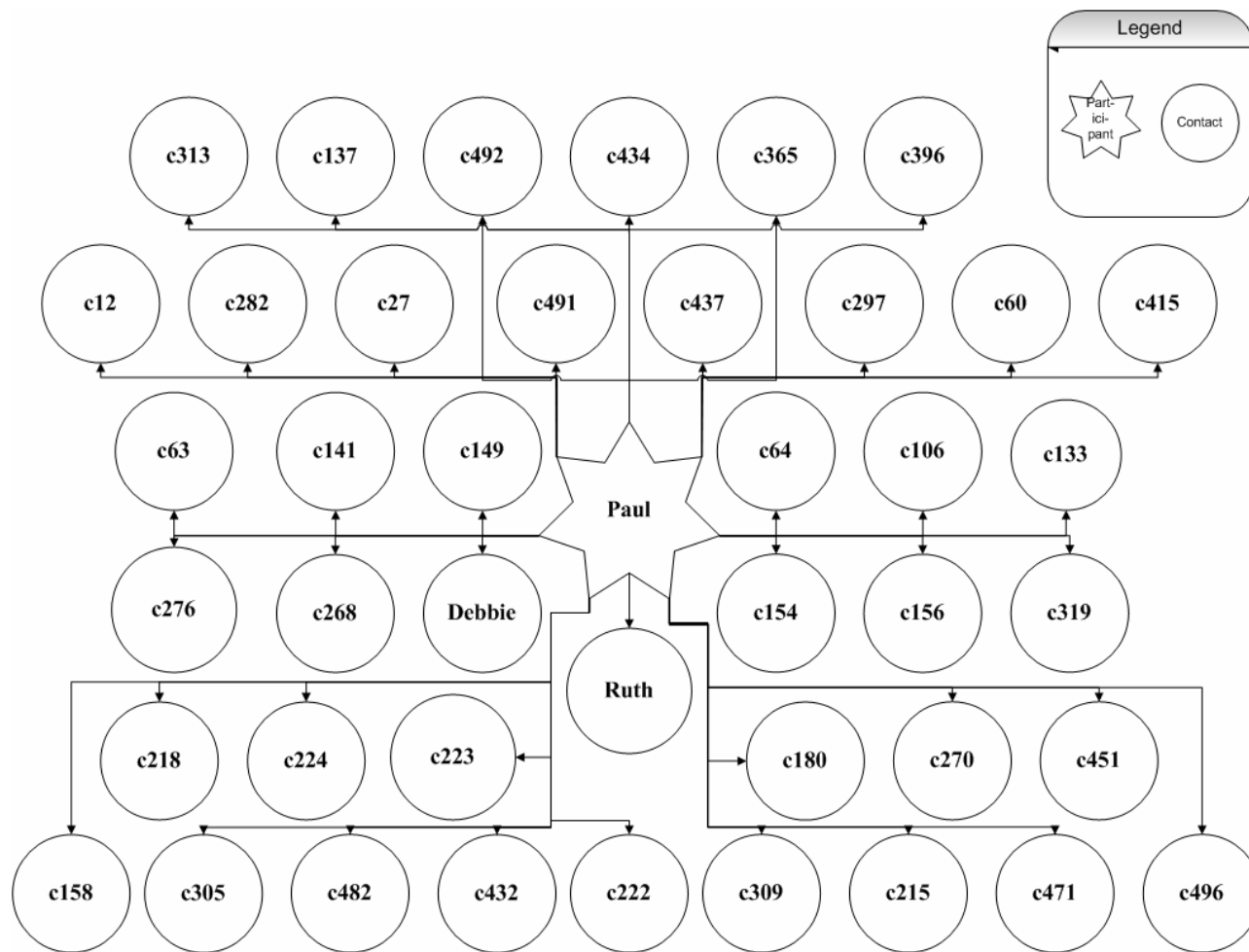
Figure 10: Personal Network Model of p154 - Paul

that could be. . . helpful. There's no reason why, if a teacher can come into your

classroom and be a guest lecturer, you couldn't bring people in online. . . One of the

things I think is lacking is a kind of culture around teaching (online). There's a culture

outside of online where faculty talk to each other, but for online itself we don't have a

culture. So that would be a way to address that. There's probably some other ways we

could do that. . . like, maybe all the teachers who taught similar kinds of things could

have a data base they used in common of online teaching strategies or could ask each

other questions online about those kinds of things. . . or visit my class and see what it's

like online and then give me some advice." Paul "likes to be hands on with other

teachers so that the best thing is to be in the same room. . . it goes with all the

technology, face-to-face. . . I like when you get people looking at something."

Similar to other online faculty interviewed for the study, Paul's work hours blend,

creating a perception of 24/7. "One feedback I got when I taught an entirely W course

was, on the evaluation, they never waited more than two hours to get a response, even if

it was three in the morning because I was always awake. I was always online. I check in

a lot, I guess. I don't have to shower or. . . look presentable. I give an online

presentation, I'm gold any time."

With such flexibility, his discussions about teaching online are not limited to the

hour. "Students get back to me when it's convenient for them, and I have some

colleagues who I like to e-mail. I e-mail them at 3:30 and I get a response at 4:00."

"The way it's (teaching online) become so routine" helps explain why Paul feels

his discussions about teaching online have "really dropped off. . . At first it was a lot, but

now it's less and less, but if something extraordinary happens. . . Something that rises

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above the routine with my colleagues and sometimes they ask me questions. . . However, mostly it is so routine, that it doesn't merit a lot of discussion. It's like simply send an e-mail to this person and they solve it."

Paul says "I think I tend to discuss it more if something really good or really bad happens. Otherwise, it's become very routine. I don't think I discuss it regularly unless something out of the ordinary happens: really surprised at a discussion or it's productive or in some cases I've had an open revolt by students reacting to something they didn't like."

He "can't really pick" whether he prefers to read, hear about, or see new teaching online ideas demonstrated. "I guess all of the above. . . It's very different. I've been reading some of the new books that came out on online teaching and research. . . So I've tried to keep up with the research that comes out on online teaching and also with the pedagogy stuff, and I'm in the middle of reviewing a textbook on (discipline) which just came out, which could be taught in an online environment or it could be taught with face-to-face. So I try to keep up with that. At the same time, I like to travel to places or, you know, have people come here and share what they're doing. . . I feel sometimes like you can kind of get isolated. . . a few years back I went to London for a conference. . . and they were doing really interesting stuff with online teaching and learning. . . not a lot of it is getting filtered down here. So I've been following those kinds of things. . . So it's good to be able to follow up on those kinds of things. It would be nice if the world were a little smaller."

What influences Paul most when deciding about new teaching online ideas is "availability" of course sections. It "is a huge issue. I found that there are not enough

sections. When I request to teach online I frequently don't get an online class. I don't

know why that is. I request it more than I get it. I think they have too many classes with

students sitting in seats and not enough teachers to teach them, and they want me to do

that. But I would prefer to teach online more. So availability is a big issue. And there

are very few classes that I couldn't teach online. Probably the ones I can't -- I teach

(discipline) classes, and that would be pretty impossible because most of the (teaching

aids) I see are not available. You have to be there. Other than that, I would pretty much

be comfortable teaching anything else online."

"The major thing is time - lack of" inhibiting Paul from trying new teaching

online ideas. "And another thing is support -- lack of, and money -- lack of, and student

preparation -- lack of. In other words, like, if theory was not a problem for a lot of

students, if they came to class expecting and knowing the facts of what they need to be

doing, I would do more of it. But it's very hard to incorporate that into class, but also

(activities), they just want to do the (activities). They don't want to do the theory. So to

me, that's a cultural issue because UCF has not developed a culture of theory and

scholarship, in a way. It's still, in a lot of ways, a technical school."

When describing how discussions about teaching online with other faculty

members have influenced his perceptions and decisions about teaching and learning, Paul

replies "For example, when I assign students to make (projects), that's all stuff I've been

practicing or thinking about for a long time. So mostly I would say almost everything at

college I teach has kind of a ten-year span from conception to fruition, and then at

various stages people contribute a part, and I ask people for advice. It tends to be how it

works. . . It's a matter of the central pieces fitting together. The technology doesn't

bother me because like I said, we didn't even have computers and we started doing something with the simulation of hypertext. So I do that, you know, if the technology's not available, I'll simulate it. . . I got a letter the other day. . . from a student from ten years ago who just took this (discipline) class, you know. It changed his life. So that's the pay off. My understanding is that ten years from now, people will really appreciate me."

Textural and Structural Personal Network Description of p155 – Sara

Sara has a master's and Ph.D. in (discipline). She teaches all levels of "undergraduate (to graduate discipline) college programs." Sara began teaching online because "these are the major modes for teaching (discipline) at UCF and in the future, for other institutes of higher learning." Although she offers "all objectives can be accomplished via WWW courses," Sara prefers "a mixed mode course" as the initial course for most nurses. While she considers her own technology skills to be "medium to high" having "created academic and personal Web sites," Sara recognizes "most (professionals) are not computer savvy when they first come back to school." Therefore, some face-to-face classroom time can facilitate development of students' technology skills. In addition, Sara offers "some students need not only the personal contact with the professor, but also the support of a live class- to open their minds and to build confidence."

As a "second loop change agent," Sara "generally likes to see at least a part of new things implemented prior to jumping in." If she feels "very, very educated" in an area, Sara suggests she can be innovative. Her approach to innovation-decisions is "research-based."

Sara describes her personal network (see Figure 11) as relationships with faculty members from the same department and program who share similar educational backgrounds and teaching philosophies and experiences. These relationships are both professional and personal, however, she does not prefer discussing teaching online with one or the other. "Online or in meetings, same outcomes." Sara thinks whether their relationships are professional or personal does not influence her perceptions and decisions about teaching and learning. Rather, "the more experience, the more credibility in mentoring." Generally, Sara speculates she is "in the middle" regarding whether she is primarily the sender or receiver about teaching online ideas. She attributes her differing role to her "years and experience" compared to the faculty member with whom she is speaking.
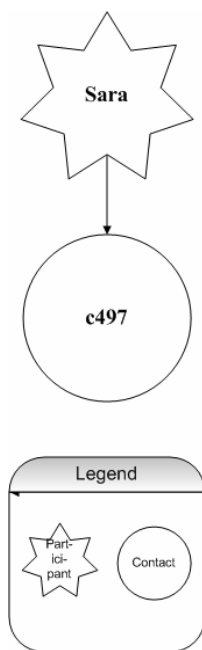
Figure 11: Personal Network Model of p155 – Sara

Sara's discussions typically occur "face-to-face, by e-mail, or telephone. . . it is just the time to get together. . . Time" can prevent her from discussing teaching online.

Although Sara reports her work hours as typically "9:00 to 4:00," she recognizes "this is wide open due to lots of Web courses where communication can be 24/7." For that reason, she speculates she typically discusses teaching online "probably equally" during and after work hours. Sara typically discusses teaching online "one hour per week max." She attributes this frequency to her experience teaching online; as "more experience accrued," she finds "less discussion initiated with me."

She describes her discussions about teaching online with other faculty member(s) as typically occurring to "to address a need or problem." She could not think of why she would not discuss teaching online with another faculty member.

"IDL, Course Innovations courses, and frequent contact with a WebCT advisor have helped" Sara "most" when learning about new teaching online ideas. She has "no preference" whether she learns about new teaching online ideas by reading, hearing about them, or seeing them demonstrated. "Trying them out myself- especially if something is interactive" influences Sara most when deciding about new teaching online ideas. However, "time limitations" can inhibit her from trying new teaching online ideas.

A few examples of ways in which discussions with other UCF faculty members influenced Sara's perceptions or decisions about teaching and learning include "Course Innovations Fall 05 discussions re: interactive sources, discussion rubrics, and Web discussion formats."

Textural and Structural Personal Network Description of p176 – Julie

Teaching is a second career for Julie. She originally "worked in health care for twenty years or so," accepting "the opportunity to teach about five years ago." Within a year after moving to UCF, Julie began co-teaching a mixed mode terminology course. "It wasn't a creative endeavor so much as just trying to manage a lot of people." As with several of the other faculty interviewed, her decision to teach online was "sort of mandated," however, Julie also sees it as a "good opportunity."

Other than the professional development course, IDL6543, Julie has "no formal training" to teach. In addition, she considers her technology skills "very middle-of-the-road" and theorizes the e-packs she uses in her program "sort of limits" her teaching experience. Generally, her instructional strategy is to present the material, provide some visual aids, and, if the class size is small, allow for student interaction.

Although she likes change, Julie also likes "some continuity of doing things." She does not consider herself an innovator. Generally, when Julie hears about a new idea, she researches it before interacting with someone who has used the idea. She needs "a visual in a lot of things before I can make a decision." Julie approaches development of her teaching skills in the same way. "Since teaching is still new to me, I feel I still have so much to learn just to be able to do what I need to do."

The face-to-face components of classroom teaching are why Julie prefers mixed mode courses. "Now, obviously, a combination is the best, but some people just don't want to come to class. . . I think, in reality, the way the world is today, that most people don't need to be in class to get all the material they need. There's so much more new

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stuff on the Web. . . So I don't see the added value of more face-to-face time. I think a mixture of it, for anybody, is a good way to go nowadays."

Although their offices are not located within close physical proximity ("same building. . . They're upstairs on the other side."), Julie describes her personal network (see Figure 12) as "mostly professional" relationships with faculty "99 percent of the time" from the same college, department, and program. In addition, she discusses teaching online with faculty outside her department. "When I was in that Course Improvement Project over in FCTL, a fellow participant was an English professor. . . I talked to her a little bit about rubrics."

She speculates she shares similar educational backgrounds with the other faculty "in my department" because "most people don't have a Ph.D. and most people have worked in health care." Julie also thinks they share similar teaching philosophies and experiences "sometimes. It's hard to know that. . . because I don't know much about" that."

Within this personal network, Julie finds herself primarily the sender "lately" in discussions about teaching online. "I think there's some give-and-take, but lately, because I was the one that found the movie and showed it to some of my coworkers. . . I think some of them are going to use it. . . don't know that I received that much lately, but I think I have in the past. So I think it's a little bit of give and take."

For Julie, discussions about teaching online occur about "once a week, not every day." She prefers "face-to-face" because "it's more convenient. . . I work from 7:00 until 5:30 or 6:00. But then I don't get on the Web at night. . . on the weekends and stuff, I do get on, but. . . I do what I have to do at that point, and I don't socialize with

my colleagues online and stuff. That happens face-to-face during that 7:00 a.m. to 7:00 p.m-ish time."
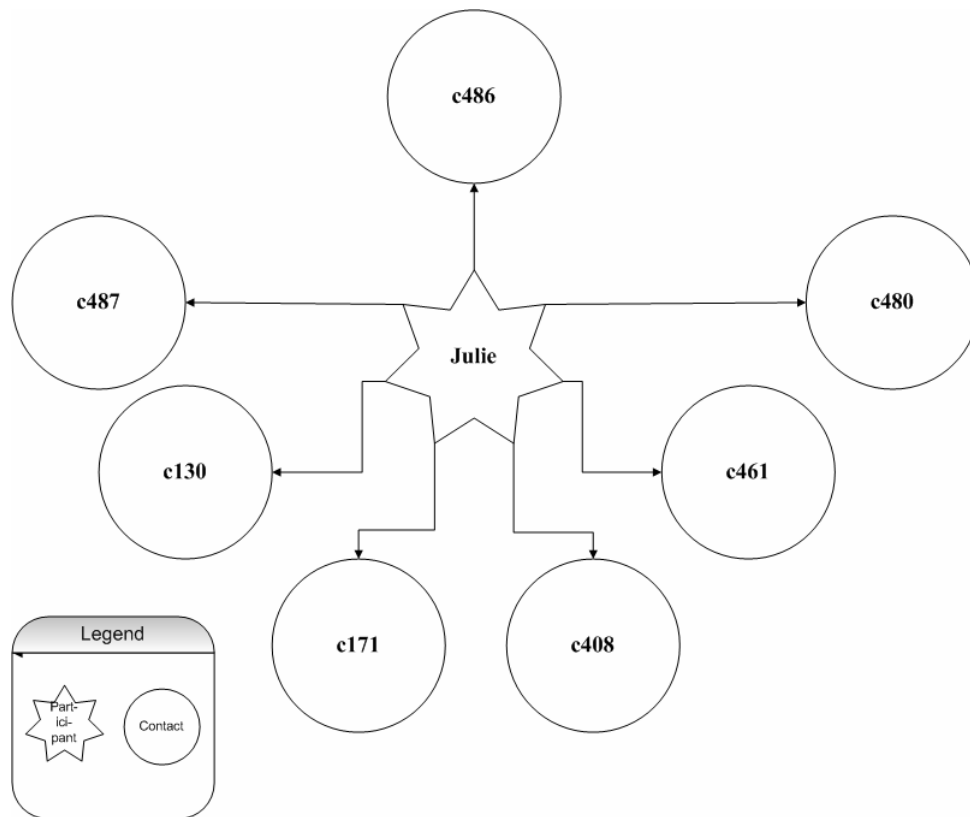
Figure 12: Personal Network Model of p176 - Julie

Julie finds "the more classes I teach online that have an online component, the more input or whatever, you know, the more they talk about." However, discussions with faculty "whose teaching styles I'm not familiar enough with to talk to them about my style" can prevent her from discussing teaching online. "People that I speak to mostly are people at my level."

Her discussions about teaching online "lately" are due to "the newness of that technology and kind of showing it off, I guess, being able to share. But how I think it'll help me, and then the coworkers can kind of imagine how it would help them. . . This new technology is sort of like a need, fulfilling a need." However, discussions with faculty "whose teaching styles I'm not familiar enough with to talk to them about my style" can prevent her from discussing teaching online. "People that I speak to mostly are people at my level."

What influences Julie "most" about new ideas originating from discussions about teaching online "is the usability or the practicality of them in my classes. . . I actually implemented some of the things that this woman uses in the statistics class that I'm taking. She puts movies in, she calls them. They're PowerPoint-page formats, I think, and I never knew about that before. And so I found out about it by being in a class where they use it. . . and my class is going to see those things in the spring. So hearing about it probably never would have even come in, but seeing it and using it showed me the value of it and showed me where I can use it in my class."

Like several other faculty participants interviewed, "time" inhibits Julie's ability to try new ideas. "Time is a big factor, and probably people not understanding or not knowing what's available is a big thing because I know this has been around, but I just didn't know about it. One thing, last semester, last spring, I had a lecture, a guest speaker video, and in order to show the video in the class, I had to have it all transcribed, and that's a huge time consideration. . . So the technology's great, but it's not as cut-and-dry as it seems."

A few examples of how discussions about teaching online have influenced Julie's

perceptions and decisions about teaching and learning include "streaming video. . . and

some Web sites that we could link. . . And I guess another thing that I learned from

another program is a virtual professional package experience. . . Our students have to go

through an internship, and now part of it is, if they visit all these areas in the (professional

office), it takes. . . quite a bit of manpower. . . So if we could take that, kind of, off of

them, and make it virtual then, it's like, maybe the students can get better experience,

hands-on experience in other things. . . I don't think I know what all there is to do. So I

haven't done a lot of wild and crazy things. . . I did discussion boards and chat rooms at

BCC, but here in the large classes, well, right after I did IDL, I did try some small group

discussions and we did small group assignments, but I really wasn't happy with the

results of that, so I moved away from that this time. You know, it's a trial situation,

really, just try new things, and then, if you think it's working and you get good feed back,

then keep it. . . I think that one of the things which is not the technology. . . is

responding really quickly to a concern that students have online. . . being responsive to

them, and they seem to really appreciate that. And so, even if they are hostile about

something, if you give them a quick response, at least they don't stay hostile and let it

fester. But, you know, for the most part I. . . don't know that I think that full Web

classes are the best choice. Some people took them in what, I think, is the not good way,

but we really can't do anything about that. So I really do like the mixed mode the best,

especially for our program. . . In today's world, we try and get our students to get jobs in

(profession) departments in (professional offices) while they're students so that (a) they

have their foot in the door and (b) they understand everything we're talking about

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because they're hands-on out there working in it. And with mixed mode classes, I think it's much easier for them. . . Our goal is to have them productive, you know working people when they graduate, and the more they do before they graduate, the better the chances they have."

Textural and Structural Personal Network Description of p179 – Tina

Tina "taught ninth, tenth, eleventh, and twelfth grade English in 1971 or '72" for "two years." She's "not a teacher by degree," but "an English major" with a master's in another discipline. Somewhere between 1992 and 1994, Tina "applied as an adjunct" at UCF and "worked my way up from adjunct to visiting instructor to instructor" to an assistant chair. She began teaching online "because my department offered me the opportunity to attend IDL and I wanted the. . . money and the laptop." Tina also "realized that this was a niche that I could fill." "The ability to teach a W is a career advantage in this department." However, she also recognizes the limitations of teaching online, such as fully online courses do not "allow the force of my personality" to show, permit her to "see their faces," making it difficult to "adjust my delivery to match what they do or do not understand," and enable her to "easily adjust the content to meet your students needs along the way."

Her teaching preference is "face-to-face, although I see the merits of doing some things online." Tina describes herself as "a Socratic teacher." Primarily, she uses lecture and discussion, however, also may "use some group work" for students "to discuss a single point." Tina also describes herself as "a very descriptive teacher," trying "to meet my students where they are in terms of examples." Rethinking "portions of my teaching online" is "the reason my class online has gotten better."

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Change generally does not bother her; Tina sees herself as "a go-with-the-flow kind of person." She's "okay with the changes in technology. . . as a necessary evil." She's also "not afraid of it" and ranks her technology skills as "medium to high." Tina is "always interested in if" other faculty members "have something that will make my work easier and more efficient," adopting items such as using Excel for grades and PowerPoint as "more efficient than to write everything on the board." Through her discussions with "colleagues who are using it or who might have used it" and her husband, Tina decides whether or not to use something new. "I'm big at looking for feedback. I look for feedback before I make a considerable investment in it. I have no interest or affinity for exploring the possibilities of technology. You know when people say, "Just play with it for a while," I never, ever do that."

Tina describes her personal network (see Figure 13) relationships as "both" professional and personal. She discusses teaching online with faculty members from other colleges, departments, and programs. "I don't seek out people, but I run into them occasionally. . . Then you hear what other people have said from other people. . . the grapevine." She theorizes she is both sender and receiver in these relationships. "I ask as often as I tell."

She does not believe members of her personal network share similar educational backgrounds. "I'm not a Ph.D. I have a Master in (discipline) and an undergraduate degree in (discipline)." However, Tina thinks they share similar teaching philosophies and experiences. "Oh, absolutely. I share students with these people."

Although her personal network spans a diverse group of faculty, not all of the members are physically located at a distance. Tina lives "in the same house with my

husband. Certainly, there are people in the department that I talk to who are in close

physical proximity."
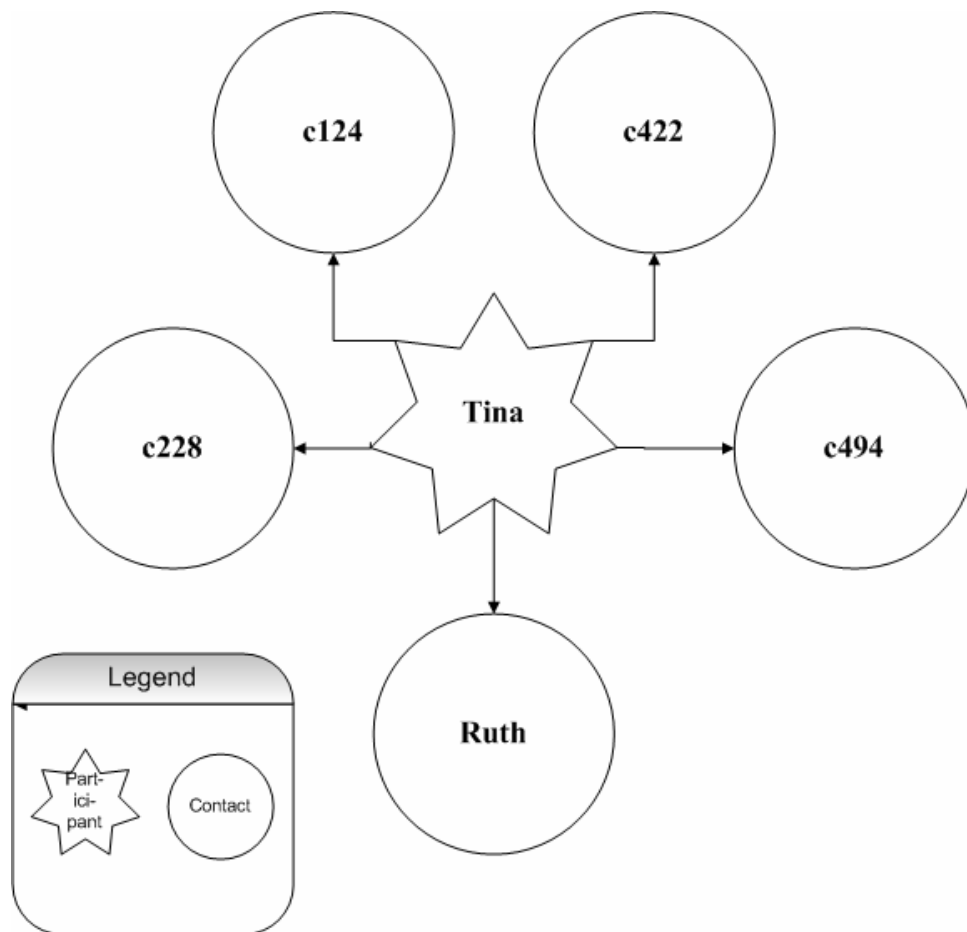
Figure 13: Personal Network Model of p179 - Tina

Tina discusses teaching online with other faculty members regardless of the type

of relationship, professional or personal, they have. However, one of her personal

relationships influences her perceptions and decisions about teaching and learning more

than the others. "I certainly trust my husband's judgment almost over anyone else. . .

because of his technical expertise and the fact that I just trust him personally. . . he knows me, and so he responds to what he knows about me, and I know him so I'm able to conceptualize his responses more effectively than I would for someone I don't know as well. I understand his motives and what he's trying to accomplish. I don't know these other people that way."

Although Tina "likes to use all methods" of communication, she typically uses "e-mail and face-to-face." However, she rarely discusses teaching online. "In a year's time, almost never unless I need to know something. So my friend who always teaches online, when we're together, we, sometimes in the summer, she and I communicate through e-mail quite a bit on how our online classes are going. When my husband is teaching, he teaches an M class, so we are more likely to have conversations about it. I think he teaches his M class in the spring." This description illustrates her comment lack of "opportunity and access" can prevent her from discussing teaching online.

Although she rarely discusses teaching online, "they're certainly more frequent than if I didn't teach online, but they've leveled out. There was a very high learning curve to teaching online, and now I don't ask as many questions. I'm more comfortable fooling around with WebCT. I have a clearer idea of what I'm doing and why I'm doing it and how to get it done, and so now most often my questions have to do with how can I get this up there the way I want it to look. . . So I've invested what I consider to be a great deal of time in the aesthetic of it. You know, when I insert photographs and pictures they're not haphazard. They're very carefully done so that it looks the way I want it to look."

Tina considers "work hours eight to five because I spent half my life in the corporate sector where eight to five is the reality. So when I'm here, before or after 8:00 and 5:00, I consider that after hours. But when I work at home, which I do all the time, I always consider that I'm working on my time, and I most often discuss things after hours."

In Tina's personal network, discussions about teaching online with other faculty members typically occur to address a need or problem. She could not think of why she would not discuss teaching online with other faculty.

When asked if she preferred to read about, hear about, or see new ideas demonstrated, Tina replied "I don't have the opportunity to see them demonstrated any more. . . I guess, you know, if I can see it and then read about it, or read about it and then see it, I'm not necessarily a visual learner unless you consider reading visual learning. I like demo. I can model techniques and processes. If somebody shows me how to do it, I take copious notes, and then I do it."

When deciding about new teaching online ideas, Tina is influenced by "someone else's success with it and ease of use. Like my husband currently up loads only PDFs to his WebCT courses because he's paranoid about people changing his content. I don't care that much about it to learn what I need to know. . . I intend to master that little technique of creating PDFs and uploading PDFs for this summer. . . The other advantage is you can maintain the look. So he does it for security reasons, I'm going to do it for aesthetic reasons, aesthetic control over what my documents look like."

Tina is inhibited from trying new teaching online ideas by "the investment and the learning curve. I'm a very busy woman. The university invested in me once. They gave

me a thousand dollars, and they gave me time and space to do it and that's fine, but everything since then is on my time, which means it's on my checkbook. So my time is money, and I can't spend a lot of time wandering through the techniques."

When reflecting on how discussions about teaching online have influenced her perceptions and decisions about teaching and learning, Tina says "one of the hugest pieces, and I passed it onto another teacher, is my friend at (another institution) who uses Blackboard, she had an announcement page. It was a single page on her site where she put up a teaching blog. . . She responds to student activities there. She responds to questions there. It was kind of like an 'ask the teacher,' but wasn't an 'ask the teacher' because it didn't come from props. It came from what she wanted to tell them. It would be just like if you stood up in front of a class and said, 'Okay. So now I know this, that you've been doing this, and you need to be doing that.' So (instructional designer) helped me get an announcement page on my course, and it's dated and there's a line when you go to my course that says 'always read announcements first.' And I synthesize discussions on my announcements page. I do not post response to student discussions and student topics. . . I evaluate the discussions. I grade the discussions, but I don't comment on them. What I do is I synthesize the discussions and post the synthesis on the announcements. If they turn in an essay and there is an across-the-board error that should be attended to, I mention it in the announcements. If I'm going to change an assignment or a date or I want to remind them or prompt them, it's in the announcements. And you can go to my course to see how it works. It allows me to have a voice. It allows me to be the teacher of the class because every few days I write on the announcements page things I want them to know, and it's worked out very well. I was not able to sell it to everybody

I talked to about it, although my intent was not to sell, but some people said, 'Oh, my gosh. That's such a lot of work.' Well, one, I've gotten efficient at it, you know, uploading it and editing it and that sort of thing; and two, I find it to be far more efficient than writing comments on discussions. And that way everybody gets the benefit of all the discussions. My discussion topics are divided up in groups so you don't get to see what everybody writes, and they don't read what everyone writes any way. But when I synthesize it, I hope that I'm offering them the ideas of other people so that they can quickly and easily see what other people had to say about a reading, for example. I also integrated. . . another text. . . and there are exercises in it, and so I grade the exercises. But I use the students' answers, the correct ones, I post them in the announcements so that you can see what other people did that was correct. Once again, I don't have to comment on their (discipline) exercises. I just grade them. But I use the announcements as a place where you can go and see feedback for your work. And I've gotten a lot of positive feedback for using student (exercises) that way. They go to the announcements, and I credit them, so they go to the announcements to see their name. But when they see their names, they read it, and what I know is they don't read the other stuff. If they can do an assignment without reading the directions--they don't read directions. I'm always amused at the WebCT courses where the professor goes on and on for pages in commentary. They don't read it. But they read the announcements because they risk missing something and they risk seeing their name. . . Halfway through course, I open up an anonymous "How's it going for you?" discussion topic, so they're free to post comments and criticisms about their class anonymously. It's a pedagogical strategy that I use, not that I'm not responsive to their comments. But I try to make the course fairly

rigorous at the beginning, so when we get to the part where they complain about how much work it is, I take something away. They love that. They think I've responded to them, when in fact, I've just manipulated them from the start. . . The first time I did the class, it was a hundred percent text on the Web because I didn't have any ability to insert visual images, and I've learned how to do that over time from talking with people and from help from my husband. So now I make it a point to have images on almost every page. Sometimes they are whimsical and sometimes they are, you know, I have pictures of the authors that we're reading next to the instructions from the text because there aren't pictures of them in the book. I learned how to provide links to other places on the Web. . . I did a Web cast presentation. I learned a great deal when I was taking IDL, and I certainly, like many people have done, used the stuff that was presented to me through IDL. It was very helpful. Because of that I have become pretty open with what I have. If you'd like to use it, feel free because I certainly stole my fair share of stuff. My experience teaching online is that students who sign up for my class are not interested in learning. They are interested in spending as little time as possible because going to school is inconvenient for them. . . This idea that online curriculums are serving a population that has no other access to the material, in my case, I find that to be patently false. Almost a hundred percent of my students live on campus, or they live within fifteen miles of here. And they are attending this campus or another branch campus to attend face-to-face classes. But taking classes online is more convenient, and so they are coming from a convenient mode which is to say they don't really want to engage, and they're not really interested. . . What they really like to do is stay home and watch DVDs, and this allows them to get course credit. Now, I have had people who are

working full-time jobs. . . They think it shouldn't take up too much time. They think that

a three-hour course online should only take them three hours. So I make the case

repeatedly that a three-hour course is going to take at least six to eight hours of their time.

I conduct an extremely down-to-earth, face-to-face session at the beginning of the year.

At the beginning of the term when I say, 'You probably don't want to take this course

because here's what it means.' So nevertheless, I have people who are taking two or

three (discipline) courses simultaneously, online during the summer because they're

working forty hours a week. It's not about learning. It's about delivering credit. I like

the course I teach, and I find the curriculum is justified at a college level. But I can tell

you it's not about learning."

Textural and Structural Personal Network Description of p200 – William

William has been "teaching higher education since the early 1980s." He "also

taught K-12 via special projects in public schools, and currently volunteers to help teach

early reading in pre-K." His teaching preferences are face-to-face and constructivist.

Although he describes his technology skills as "medium," he likes mixed mode "since it

makes available more possibilities." In addition, William theorizes the digital focus of

his course lends itself to an online environment. Possibly due to the combination of his

teaching approach and course focus, William feels his course "has been very successful.

It makes me think we could teach more of the course online."

William considers himself an innovator in his "scholarship." Through

interactions with others "concerned with my primary research interests," William decides

whether to adopt or reject new ideas.

He describes his personal network (see Figure 14) as "colleagues and friends." They teach in the "same college" but "different departments." William shares similar educational backgrounds "with some," as well as similar teaching philosophies and experiences. However, he describes their offices as "spread out -- Research Park, main, downtown."

William prefers "to discuss teaching in general with someone who has a disciplinary knowledge similar to mine; find those outside of the discipline, who think of pedagogy as separate from the knowledge taught, as problematic." William does not think these discussions influence his perceptions and decisions about teaching and learning more than "by trying out what works online."
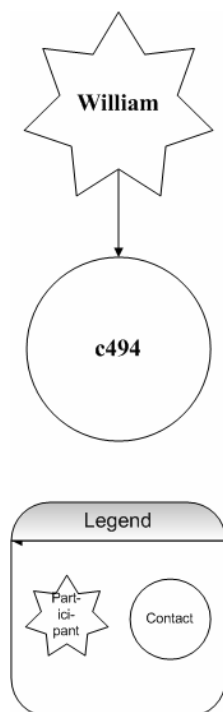
Figure 14: Personal Network Model of p200 - William

William discusses teaching online "constantly," by "email" or in "face-to-face meetings." His description is not too surprising considering his work hours are "24/7."

Discussing teaching online is second nature for William's "team, designing (class projects), addressing" online needs or problems "all the time, everyday. . . everyday of the week in terms of delivering our (service), and for my WebCT class, three times a week." "Institutional systems that make the conversation one way and pitched at a condescending level" are the only impediments to his discussions about teaching online.

William prefers to "see" new teaching online ideas "demonstrated" when learning about them. "Demonstrations available online" tend to influence him most when deciding about new teaching online ideas. However, William can be inhibited from trying new teaching online ideas when "the sense that the individuals delivering the ideas are condescending and think of the delivery as transparent media without concern for alternative ways of knowing."

He found the question asking him to describe a few examples of teaching online ideas resulting from his discussion with other faculty members which influenced his perceptions or decisions about teaching and learning "difficult to answer." Possibly because William's discussions have been "evolving over three years. Began, by just trying to do something. It has developed into countless e-mails and conversations -- everyday for three years."

Textural and Structural Personal Network Description of p220 – Joyce

Joyce has taught in higher education for 24 years. "Some years overlap in the following categories: 7 years as graduate associate (teaching my own courses), 10 years as adjunct instructor, 10 years as full-time faculty member. Note: Adjunct and graduate

associate years overlap because I taught at two different universities with two different positions/position designators." Although "most of my courses include a collaborative research component," her instructional preference is "traditional lecture with a Socratic element."

She began teaching online for "a variety of reasons. Probably the most prominent is for the ability to engage students in detailed discussions online that would not be possible in a face-to-face course, which in turn increases student engagement with the subject-matter of courses. A secondary reason was to learn new pedagogical methods that could and can be incorporated into all teaching modes."

Joyce describes her teaching preference as "face-to-face generally, but with respect to online teaching, mixed mode and fully online are about even." That's not to say she does not like online courses, rather "I do like online courses, but simply prefer traditional, face-to-face courses. . . Teaching online is missing the personal component of a face-to-face course – that is, the ability to "connect" with a student, to see on students' faces the kind of "light" that comes on when they understand a complicated concept. On the other hand, I try to make sure that content modules for my online courses are as close as I can make them in prose form to the way in which I present information in face-to-face courses. That is, I try to keep the presentation of course material in content modules in as much of a conversational style that is practical in the medium of electronic content delivery."

Not a self-described innovator, when deciding whether to adopt or reject a new idea, Joyce considers "whether a new pedagogical approach is consistent with the subject-matter for a course, whether students will benefit from a new pedagogical

approach, and whether I am comfortable with and confident in the teaching technique being considered." Although she considers her technology skills to be "much more than adequate," she feels strongly about limiting "the use of external software (such as software designed as companions to books) to a minimum so as not to overwhelm students with the need to learn software skills in addition to course content."

Joyce describes her relationships with the faculty with whom she discusses teaching online as "both" professional and personal (see Figure 15). "Most are in the same college, department and program." In addition, all of them "have humanities-related degrees in philosophy, humanities, or religion" and are physically located "on the same floor of the same building, and in some cases, in the same corner of the building."

However, they do "not generally" share similar teaching philosophies or experiences. "One other person in the department has developed collaborative learning strategies and pedagogical approaches, but so far as I know, I am the only person who incorporates this into online courses in the same way in which they are done in traditional, face-to-face."

Joyce does not have a preference regarding whether she discusses teaching online with professional or personal members of her personal network. She also does not believe one, professional or personal, influences her perceptions and decisions about teaching and learning more than the other. Joyce considers herself primarily the sender about teaching online ideas. "People ask me often how to organize online courses, how to use WebCT, how to use various kinds of software. The only help I've ever received with respect to teaching online is from (instructional designer), and then it has been only

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to have a quick question answered about, for example, how to change the numbers in a

content module. Otherwise, I do these things myself."
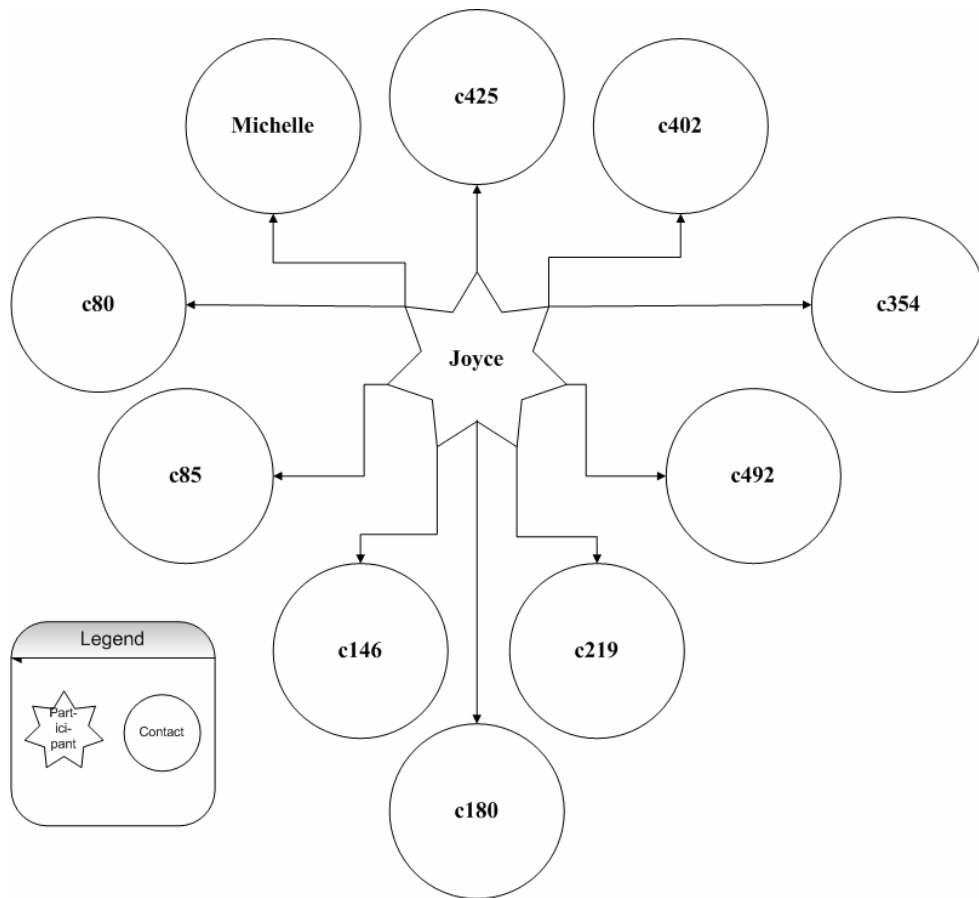
Figure 15: Personal Network Model of p220 - Joyce

The communication method for Joyce's discussions about teaching online varies.

"It depends, really, on the person and the situation. Some other faculty members come to

my house so that they can work on their online courses, others have sent me e-mails

concerning some element of teaching online, and others simply ask about things, or we

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discuss elements of online teaching, informally in the hallways of the department. . .
When we talk about these things, I'd say it is about 2 times a week, on average. Some
weeks, it is not at all. Other times, it is fairly regularly."

Her "work hours are, quite literally, any time of any day. Generally speaking,
from late morning to early morning the next day." However, Joyce typically discusses
teaching online "probably" more after work hours than during. She finds her experience
teaching online results in "more questions from others about online teaching."

Joyce does not "seek out" discussion about teaching online. "They just happen
when any of us happen to be together discussing teaching." She could not think of why
she would not discuss teaching online with other faculty.

She "prefers to read about" new teaching online ideas "and then see what others
have to say, and then see them demonstrated" when learning about them. The "effect on
students" and "student-friendly approach" are what influences her most when deciding
about new teaching online ideas. "If the new teaching online idea will more likely
enhance student learning, then I am willing to consider trying it."

According to Joyce, "on those occasions on which I hesitate to incorporate or try
a new teaching idea, it usually has to do with the amount of time it will take to implement
it considered in conjunction with the expected benefits to students." However, a few
examples of teaching online ideas resulting from Joyce's discussions with other faculty
members which influenced her perceptions or decisions about teaching and learning
include "collaborative research among groups of students in online courses." Joyce also
would like to see "stronger statements regarding the time commitment that students
taking online courses need to devote to those courses (say, for example, in the "Is Online

Learning Right for Me?" link online). For example, I have heard online students say that there is 'too much reading' in an online course when they consider the texts as well as the content of content modules. But if one is attempting to present the same information (albeit in a different way) in an online course that would be presented in the parallel face-to-face course, the translation of information into the online format will of necessity lead to an increase in the amount of reading. Further, however, students seem truly to enjoy and learn quite a bit from engaging in discussions online when those discussions are structured to elicit substantive responses from students to engage them in critical inquiry. I have also noticed that students both prefer and tend to learn more from quizzes online that are set to be taken more than one time. This is an enormous improvement over quizzes as a pedagogical tool in face-to-face courses. The ability to take a quiz more than once allows students to realize that the point behind them is that they learn something, not that they are simply another hoop to jump through in a course."

Textural and Structural Personal Network Description of p239 - Alison

Alison's "background is corporate business." She's "done training in the corporate setting. . . for large groups, small groups, and individually," as well as taught at the community college level. Currently, she teaches "in the College of Education." Even when she "was teaching face-to-face," Alison used "some online resources. However, I wouldn't call it a mixed mode. . . I just used some Web sites and my own Web site."

While she still worked full-time in corporate business, Alison began a master's degree which "was offered online." She attributes her "wonderful" online student experience for developing her "love of online learning." The flexibility of being "able to

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travel across the state and at the same time start working on my master's" enabled her to achieve her educational goals without giving up her employment. "I fell in love with it. And my advisor at the time, my mentor, said "So, what do you want to do with this degree?". . . And I said I want to teach online. . . I saw how it was so beneficial to those non-traditional students, that's who we have the most of, to have the access to get the courses they need in order to update their skills, their teaching skills."

Her instructional methods are more student-centered. "I'd like to consider myself more of a facilitator than a teacher that pours knowledge and information into someone's brain." Her courses are structured to allow students to "take what they learn in the courses and use it immediately in the classroom. . . they get feedback from the other members, their peers, in the online courses. . . They learn from each other. . . we learn from each other. It's a constant state of learning."

Although she prefers teaching online, Alison recognizes "one pitfall: you don't get the instant feedback as far as the visual." To facilitate personalization within the program, she requires students to meet "just once a semester." Other than that meeting, everything Alison does is "online, including my advising." However, doing everything online can lead to another "negative part." She finds "I'm teaching 24/7. Whereas face-to-face, yes, there's prep time. You go into the class. You participate in your face-to-face teaching. You go home. You grade papers. But then there seems to be a bit of a break. Online isn't like that."

Primarily due to her corporate business experience, Alison is accustomed "to change in the jobs that I've had. . . Change was a constant thing. So, I feel extremely comfortable with it. . . When you stop changing, you stop growing. To me, that's all part

of the learning process." Possibly, her continuing desire to learn explains why she "enjoys trying new ideas." When deciding about adopting a new idea, Alison "likes to try it out. . . It's always fun to try something new. Sometimes it works, sometimes it doesn't work. But at least you try it and see what will help. . . . it's like anything else in teaching or training, you have to try different techniques so you just don't go stale." She finds sometimes the best ideas come from her students. "I ask them, reach out to them as to suggestions, and reflecting over the course, and some of the things that they would change or do to help make the course better. So, always fine tuning the process. . . going back and seeing what else you can do even better."

Alison describes her technology skills as "pretty good." She enjoys trying "different applications and programs." As "a hands on learner," she "sometimes comprehends much better if someone is sitting along side of me, showing me how to do it once. Then, I go in there and continue the process myself of learning it. . . I don't think it's that one doesn't want to do it, but when learning different applications, it's important to have the time to be able to learn it. You have to keep practicing and practicing."

Her relationships are "just professional" with the faculty with whom she discusses teaching online (see Figure 16). She theorizes these "professional" relationships influence her "more than personal" because "I'm a serious person and I have this tendency of taking my work seriously. So I guess it's more. . . I try to separate my personal life from my business."
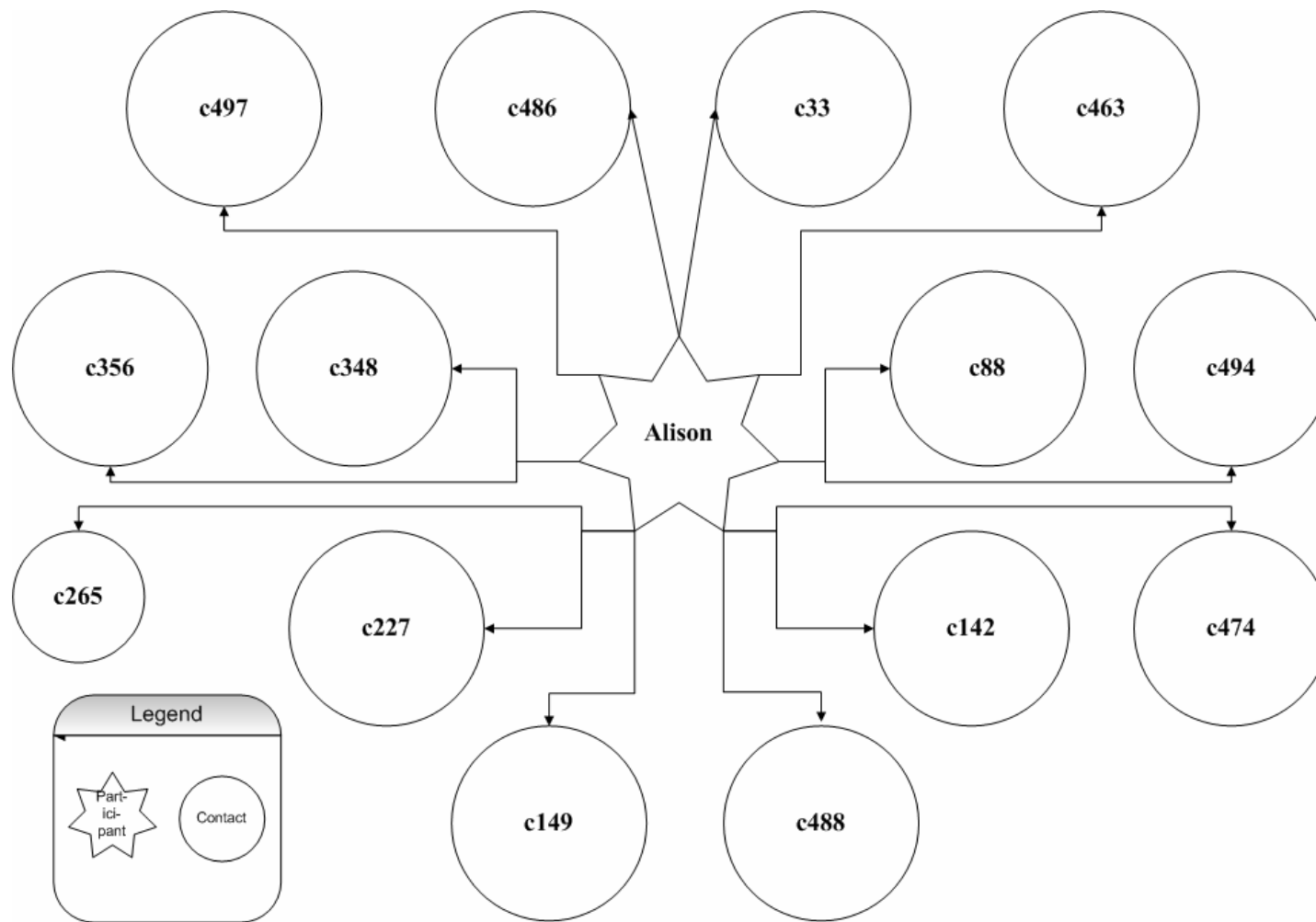
Figure 16: Personal Network Model of p239 – Alison

She describes them as "probably" from different colleges. "They could be on different campuses for all I know." Alison attributes the diversity of her network to "working on regional campuses and going to that FCTL workshop. There were people from other colleges that I worked with. . . At the workshop, all we did was just collaborate and just discuss different pros and cons and things that we used, that we shared with others. It was very, very, very good. It was excellent. It was excellent. I really enjoyed that and I learned a lot from that." Within these discussions, Alison thinks she is "both" sender and receiver. "I like to share, but I also like to get some new information and hear about things that were discovered and tried and found to be possibly time saving, both time saving and informative."

She speculates she shares similar educational backgrounds with the members of her personal network. However, they may or may not share similar teaching philosophies or experiences. "Some faculty members treat their online courses, from what I understand based on my conversations with them, more like correspondence courses. . . rather than the students interacting with each other and learning from each other. So we do have some different theories of how. . . you should teach online courses."

Alison's discussions typically occur "face-to-face or through e-mails. Kind of interesting that it should be face-to-face when we're teaching online. Isn't that funny?" She has no preference for communication methods, "either way, either way."

"Time" typically is the only thing which prevents her from discussing teaching online. She attributes her lack of time to working "24/7 sometimes. You don't want it to be that way, but you just have this tendency. I know it's not good and I know you need a break but you just have a tendency, you want to make sure those students are not isolated,

that are online. You want to make sure they know that someone's there." Of course, working 24/7 also contributes to discussions typically occurring more often "during" work hours.

Like several other interview participants, Alison's experience teaching online affected the frequency of her discussions. "I probably was seeking more for that collaboration in the beginning than I do now. But every so often it's nice to have that small peer discussion where you're hearing what someone else uses. But I think it has diminished quite a bit. . . actually to monthly, not even daily."

Discussions about teaching online in Alison's personal network "definitely" occur to address needs and problems. "How certain things are handled. And I think other faculty members. . . have certain concerns so those concerns are shared with the group and it seems as though the smaller group works far better than a larger group. Maybe it's the lack of fear to express that they may be having a difficulty and they're seeking the assistance from others. But I just think it's great because I really believe that a few minds are much better than one. You get a lot of new ideas."

Not enough time is why Alison does not discuss teaching online. "Well, that's the thing is, your time is really limited where you can collaborate with others teaching online. Most recently, I did a workshop with the Faculty Center for Teaching and Learning, and there was such focus on writing or submitting an article afterwards. . . that more time was needed just for collaboration. It was a wonderful focus group. [A researcher from RITE] put together a focus group of WebCT teachers, faculty members, and that was excellent. But I do not have enough time to attend workshops, collaborate for newsletters, and teach online full-time."

When she learns about new teaching online ideas, Alison prefers "to see them demonstrated. . . And then, after seeing them demonstrated, analyze and reflect on how it can work in other programs and the courses that I'm teaching. If it will work with the application when you use it and if it's effective, if all online learners can use it readily," she will be influenced to try it. "When you see an idea that may work, you want to get in there and just try it. You just want to, there's something that stimulates that innovativeness within you that says this may work. I'd like to try that. I'm going to try to make the time to learn something about it so I can see if it will work in my program." However, similar to several of the other interview participants, "time" inhibits Alison from trying more new ideas. "Time not to try or practice with it."

When asked how discussions about teaching online influenced her perceptions or decisions about teaching and learning, Alison responds "One of the things was whether it's a face-to-face class or an online class, students have a tendency to not read their syllabus which is very, very important because it gives an overview of what's going to happen during the semester. So, one of the things that one of the professor's use. . . is called the silly quiz, short for syllabus quiz. And the first assignment does not open until the student passes that quiz 100% and there are things you can put in there like the grading system, how do you find out/send for a copy of your grades. I mean, it's a no point kind of quiz but the quiz is mandatory, almost like an online orientation that must be passed. So, at least they had to look up the answers in order to pass this quiz and it works. It has reduced some of a lot of the time that was spent."

Peter began teaching in 1988. His "teaching experience has been interdisciplinary," working "with a pretty good range of students at undergrad and graduate level, from social workers and mental health professionals to law enforcement officers, those in the legal field." He describes his instructional methods as "problem-solving oriented, bringing in case studies and research and throwing it out for the students to evaluate, critique, or come up with why it would work or why it wouldn't work."

His decision to teach online resulted from several factors: "being an area campus instructor, . . . also trying to consider merging some. . . classes. . . where there were relatively low number of students . . . to have a greater number of students in the class, . . . also it seems something that would be extremely useful to students that I serve who are primarily law enforcement officers that sometimes have really inconvenient hours for continuing or finishing up their education." However, his decision to teach online has resulted in Peter developing new instructional strategies because he likes "to tell stories and use humor and things of that nature, which I usually don't do in the Internet - Web-based courses. . . I'm more personable in a face-to-face situation."

"Although it depends on the class," Peter generally prefers "mixed mode" to "Web-based for some classes." Specifically, he prefers "definitely mixed mode or face-to-face for my quantitative methods course."

Peter considers himself "very flexible about change" and has "found that actually it's not disruptive but actually exciting and useful." Although he does not consider himself an innovator, Peter tends to be an early adopter, developing "new courses for our

department which I think enhanced the curriculum and allowed me to really focus on areas that I'm more qualified to teach in."

Before deciding about a new idea, Peter "usually tries it and sees how it works. And if it works, I'll keep using it, or if it doesn't, I'll try to revise it before discontinuing it. See if I can get it to work." He "constantly adds new exercises, discussions, or modules for interactive exercises in my courses based on material that I read or discussions I have with others who also teach online courses. . . I definitely borrow from my colleagues."

Peter discusses teaching online with (see Figure 17) "my colleagues in (discipline) primarily and especially those that teach the graduate courses that I also teach. We often, in fact, we really try to get about six of us together and standardize our Web courses so that students would know what to expect and there'd be some standardization of the procedures, the grading, the modules. . . I think six of us got together for awhile, and we went to the teaching seminar over at the Faculty Center for Teaching and Learning, really, to help us put that together formally. . . also I often discuss teaching online with my wife who teaches M courses in the (discipline) program. So it's the same college, but she's in a different department. We talk about Web teaching constantly. . . I was teaching online courses before my wife was. Then she started teaching M courses, and she got a wealth of information from her colleagues, and then she shared that with me, and I shared what I got from my colleagues with her, and that really helped out that between the two of us. We also can add new material or, if she finds something that works out well in her course, she'll let me know, and I might try it."

The physical locations of the offices of his personal network members are within close proximity. Also, he lives and shares a home office with his wife.
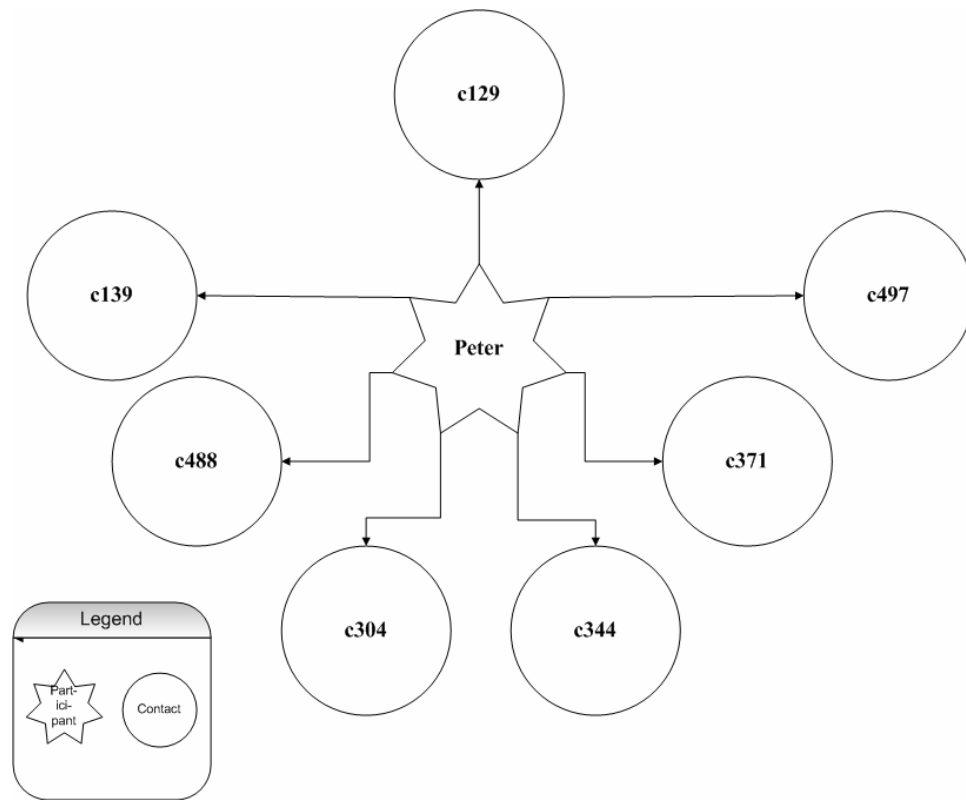
Figure 17: Personal Network Model of p242 – Peter

He thinks the educational backgrounds of his personal network "have some variations. I would say yes, I do see some similar, but also some different as well. . . Actually, we have a very nice diversity in our department that, I think, enhances a lot of our discussions." In addition, Peter thinks they "share similar teaching philosophies and experiences. "I think we do have that critical thinking view when we're teaching. . . We don't want this regurgitation of facts or textbook material, but we want them to go beyond and we want them really to put a lot of thought into what they're writing about."

Peter describes these relationships as "mostly professional, but every once in a while, there's some personal that overlaps. . . We have parties and things like that at the end of the year. I would say mostly professional, but there's that personal mix as well." He does not think whether the relationship is professional or personal influences him more "because I look at it as useful information regardless of whether they've been teaching their first course online and want to talk about what went right, what didn't, or someone who's been doing this since day one that they started teaching online. . . I know there are a few people in the department who I would consider experts and have a much greater knowledge of online teaching than I do. If I had specific questions related to online teaching, I would probably approach them for advice. . . And again, my wife and I often exchange information, and if she tells me something I might check with my colleagues to see if that makes sense or what's going on, if they've heard of it, and so on." In these discussions, Peter considers himself "both" the sender and receiver about teaching online ideas "because I'm trying to seek out other ways to do things, make it user friendly, resolving some problems that come up that are unusual."

In discussions with his colleagues, Peter "usually. . . will use e-mail with something I have a question about. I'll e-mail another colleague. Or I see them in the hall or stop by their office, or they will either e-mail me, which usually is the best way to get a hold of me, or they will stop by my office when I'm there. . . I don't think we use the. . . phone hardly at all. . . I check my e-mails probably sixty times a day, and if I remember to check my messages on my phone every four or five days, I'm in good shape. So it's a problem. I've kind of forgotten how to use that. . . I like the e-mail and just stopping by to talk. . . We can be on the phone. We can be online at the same time

and looking at the same thing. And I've done that before with lawyers when I talked to them and they're looking at data online, I'm looking at data online, and they're interviewing me, but I have access to the same stuff they're looking at. So there's minimal confusion. . . It just seems the phone's not used that frequently. And I think, also, distance has something to do with it. That some of the colleagues that I interact with more frequently are all over the place at area campuses, and we may have some pretty strange schedules that we may not see each other that much. And so we can contact usually by e-mail because it relates to scheduling, courses, requests for courses, syllabi, things like that."

"I don't really have any specific work hours, except the courses where I am face-to-face and my office hours. But other than that, I, like my students, sometimes am working online late at night or early in the morning. And I like to get up around five o'clock every morning and check everything on my courses and then answer e-mails at that time and then maybe get into grading a little bit. And I might do that all morning and take a break around ten or eleven, then come back and work some more, and then work sporadically on and off in between doing different things. . . I might get an e-mail from a colleague at twelve o'clock at night. . . I get that e-mail at five o'clock in the morning, and I answer him and when he gets up at nine or ten o'clock or something and it just seems that that's a quicker way. And also on the weekends as well, you know, I mean a couple of weeks ago, I e-mailed one of my colleagues on a Saturday night at nine o'clock, and he e-mailed me right back, and we both thought 'What in the world are we doing working at nine clock on a Saturday night?' . . . So I feel comfortable with anyone e-mailing me any time of the day or evening, and if I'm available checking my e-mails,

I'll answer them. And, you know, a lot of my students who work night shifts, you know, they may, after they get home from work, they sit down and do their work when they come in at 3:00 or 4:00 in the morning. And then they probably go to sleep for maybe five or six hours. I get up and I answer them right away. So I think the Internet and the Web courses have changed the whole idea of work hours. I think I work a lot more hours than I did when I taught face-to-face completely, but it's much more difficult to keep track of."

His irregular work hours also contribute to more of his discussions about teaching online occurring during work hours. "If we're physically going to talk to each other, either by phone or face-to-face, it'll be during work hours. But I know if I e-mail our department chair, for example, with a question on a Saturday morning, often I'll get a response by Saturday afternoon. But I think that's because a lot of us who do a lot of online teaching work when we have an opportunity, when it's quiet, or we don't have meetings or other things planned. . . I've even been out of town for a week before and teaching a Web course, you know, in the summer and no one would have known the difference because I had full Internet connection where I was, and I just brought my laptop computer and just kept working. And I had all the PDF files. Everything I needed was on my computer. So I didn't have to worry about going to the library or having a handout. It was all there."

Peter finds himself discussing teaching online "multiple times every day. . . My wife and I have our own home office that we set up where we both have our individual computers, but we're in the same room and working a lot in the same room, and if stuff comes up, you know, she might say, "Oh, you know, I got this situation" or "Have you

ever heard of this" or "Wow, this isn't working" or I might ask her, "Well, how do you

do this?" That happens every day, and probably we talk to each other more than we do

other professors, and certainly I know she communicates with other professors in her

department and I in my department, and we share that information with each other

because there's some over lap not necessarily in the material itself but in the relevance of

the applications of it. . . And really the whole learning process is very similar."

However, Peter thinks he has "less discussions with my colleagues overall about

teaching than when I was teaching face-to-face, and now it just might be because I don't

see them as often. . . when I didn't teach any Web-based courses, . . . I was there much

more frequently and constantly interacting and talking with other people in the

department about teaching. . . Now that I spend less time in my office, I think I would

focus on discussions and bringing up questions and things that are. . . more important to

the course work. In other words, I'm not going to e-mail a colleague and say 'Whoa, did

you see that game the other night?' Where if I was, you know, face-to-face, walking

down the hall and I happen to see one of my colleagues, I'd say that to my colleague and

talk about that. There's a lot of stuff that I wouldn't e-mail because I wouldn't see it as

relevant to e-mail, but I would if I was talking to one of my colleagues."

Like several of the other faculty interviewed, Peter typically discusses teaching

online to address a need or problem. "That has come up when there's students who just

don't fit into the normal procedures of things, you know. . . For example, . . . a situation

came up this semester in an M course where a student got called to active duty in the

military, and my response to him was, 'I'll make this a Web course for you, and you still

stay in the M course, but you'll do some additional work if you want to stay in the course,

or of course, you can withdraw from the course' . . . So we talk about ways to resolve

problems like that, or someone might be in an M course, and they get transferred to night

shift, and they can't make it to the remaining classes, or they move for a job. So we now

have our graduate program to get your degree totally online if you want, which means

that there's some courses I'm running where it's really officially an M course, but there

may be a few students in, because of geographical or military duty or something of that

sort, where they're taking it as a full-Web course, and that seems to work out fine.

Doesn't come up too often, but I have to talk to my colleagues about that to make sure

that that was something that we could do, and that there's not a problem, and it works out

real well and everyone seems to be pretty pleased with the outcome."

Peter does not think anything ever prevents him from discussing teaching online

with his colleagues. "I think any time we have any situation where. . . There's nothing

taboo to really discuss online. Nothing has really come up."

Similar to a few other interview participants, Peter does not have a preference for

reading about, hearing about, or seeing new ideas demonstrated. "I like all of it. I like to

see it demonstrated first and to see how it works, and I also like to be able to have

material to read so I can refer to it if I have any questions or if I missed a step. And then

I may modify it as well."

Peter theorizes discussions about teaching online have "influenced me in a very

positive way, and fortunately I went through IDL before I taught my first course online. .

. that program was extremely helpful because I would not have had a clue what to do if

they didn't have that. . . It saved me a lot of time and also showed me shortcuts that were

in there and things to watch out for. But really I think what was extremely helpful was

the teaching and learning part where they talk about how to set up meaningful exercises, what to do when conflict arises online, how to talk online, basically get the technologies that they're after that you may want to use or may not, and the advantages and disadvantages and so on. I think training like that and then keeping up in the literature is helpful as well. I frequently look over two teaching journals to get ideas. One is for (discipline) instructors, and the other is for (discipline) instructors and there's some very useful information on Web teaching in there specific to the discipline. My wife shares some of the (discipline) journals that have really a wealth of information. I think the (discipline) field probably has advanced more than most of the other fields as far as I can tell, the (discipline) at least, where they really use that technology to a great degree. I often will borrow something that is from (discipline). . . I never would have thought about putting. . . (professional) manual of medical disorders on my little Palm Pilot until I saw that (professionals) were putting the (professional manual) on their Palm Pilot. So I started thinking about all these things that they're doing there that I might be able to use in my own teaching. So I think a lot of times I'm just scavenging around for ideas and I'll gladly use them if I think they'll be meaningful and useful."

When deciding about new teaching online ideas, Peter is influenced most by trying "to imagine how it will play out for the students. I may even ask the students in a current class what they think of this idea, and they'll tell me. They give me some good feedback on what might make it more useful or what was confusing, and that's been very helpful."

Peter says "what motivates me" to try new teaching online ideas "is that I think it will be a better learning experience for the student, or it will get the information to them

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in a clearer manner. What might prevent me from using something is a fear that it won't work, and maybe the only way to try that out is to actually implement it and see how it works. . . actually I've done that before. One class I had a module and a discussion where I actually added the discussion. I thought it was a great idea, but it overlapped greatly with the module. So I combined them, and I was able to do that for students who started on it, and that worked out well. And I also know that, for example, when I have to do group activities that can be a problem where there may be five in each group and four work really hard on it and one doesn't, and I grade them as a group, not individually. That's been a problem. But. . . what seems to be a way around that is if you assign individuals in the group specific areas for them to cover, then it seems like the job gets done."

A few examples of ideas Peter has implemented as a result of his discussions about teaching online with other faculty members include "having a debate hall where I throw out a controversial topic, and I let the students go at it. And they have to present some research as well to support their view. And then they comment on each other's debates and instead of having to repeat "I agree" or disagree, they branch off into related area, so no posting looks exactly the same. Obviously, the first four or five to post have that advantage of not having anything covered at that point. But I've learned that students like debate halls. . . And I think they like interactive exercises where they can offer each other constructive feedback and build ideas, and so they have a finished product which really they were able to get feedback from myself and their colleagues. So in all my modules I ask them to respond constructively to one colleague. So most students when they post, they're going to have a couple responses from their colleagues,

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and I find those very useful too, for reviewing. . . recently I looked at this one module

that this one student wrote, and I thought, "This just isn't what I was looking for," and I

didn't grade it at that point or I wrote down a grade on a piece of paper what I thought to

be appropriate, then I was reading some more for comparative purposes in grading. And

then I came to comment about his module and I realized that I missed his whole point.

And I got that from another student who was providing some feedback as I went back and

reread it, and I thought "I missed this. I totally missed this." And so I changed the grade

to reflect appropriately what it should in that regard. And someone might offer some

feedback, and I might say the person didn't do that, and so that's helpful to have that

feedback from the students as well on other students work. . . I usually have all my

modules. . . but I change them to reflect new things that have occurred. . . So a lot of

times, I try to bring in what currently is going on into the course, and so it means

modifying modules to reflect current events, not changing, you know, the basic ideas or

structures behind it. But I often apply theories to certain situations. . . But in the Web

courses, I think, at least, for me I'm more likely to try to update it with what's happening

now. Or I might even say there's going to be an article coming out in this journal next

week, here's the link for it, but wait a week. And I don't think I would do that too

frequently in my face-to-face classes. I'd wait until the article was out and then I'd read

it. . . I've borrowed a lot. . . Some other things that I've done, the debate halls I've

mentioned, the research centers. In my (discipline) class this semester, I found an article

about the programs that were funded for years that proved not to work, that actually had

harmful effects. And so I asked my students to find a program or some research that

showed that (professional action) actually had a harmful effect. And so they all went out

there, and they found all kinds of fascinating programs and articles and material on. . .

programs that did not work and they didn't repeat each other, or if they found something

they used different research to support it so there was no overlap. . . I sometimes will

give case studies. I find this works better first when I set them up in groups that they

have individual assignments, like I might have thirty people in a class and I have five

groups. Group one will have one question, but each individual in the group is responsible

for answering a different part of the question. Group two will have a different question. .

. So you end up getting thirty postings. . . I find that works very effectively. In fact, I've

started using that instead of groups where a group of five is responsible for one product

doesn't work as well as a group of five individuals responsible for answering the same

question, basically. . . And they can answer it a little bit differently, but then the people

compare and contrast it to their colleagues who have a different question. I've sent them

out to do interviews with (professional organizations) before, but I think that was real

helpful. . . The benefit to everyone is really if you print out all the material and you're

saving it, they end up with a little handbook that's current and up-to-date at many places

in the area that they can use for referral sources. Something like that is practical as well. .

. where my deficit is, is I probably need to add more visuals to my presentation and

maybe more Web sites that have different modes of presenting. . . For example, using

photographs, for example, or graphics, things of that nature might be helpful. . . When

we're doing (discipline) courses as Web courses or someone's taking an all nighter, I

think that would help. . . And a lot of the stuff is new to me as well, and so I definitely

have to reconsider and be sensible about my teaching now. And I guess I don't have a

problem with that. I'm not stuck in the old mold of teaching that I was brought up on. . .

I think professors have to remain flexible and be able to manage and cope with change without being disrupted."

Summary

Faculty participating in the study possess different instructional beliefs, teaching experiences, and technology skills. They describe being sociable and connected in both heterophilous and homophilous personal and social networks (see Appendix J and Appendix K).

Discussions most commonly arise due to participating faculty's desire for new ideas, to seek assistance or advice, or to address perceived needs or problems. However, time constraints can prevent them from participating in such discussions.

Word-of-mouth (WOM), either face-to-face or e-mail, is the communication channel they primarily use to discuss teaching online. Yet, when asked which communication method they prefer, most faculty interviewed preferred face-to-face.

Occurring only occasionally, most discussions transpire in their offices on campus weekdays between 8:00 a.m. and 5:00 p.m., or by e-mail whenever it is convenient for them. To most of the participating faculty, these discussions about teaching online generally represent informal learning opportunities, acknowledging the importance of learning from other members of a social network. Chapter Five synthesizes the quantitative and phenomenological findings, summarizing each research question sequentially, under interpretation of results.

CHAPTER FIVE: DISCUSSION

Introduction

Initiatives to expand access to higher education through Internet-based courses place demands on faculty to develop competency in instructional design and technology (Jung, 2001; Waits & Lewis, 2003). Some higher education institutions encourage formation of communities of practice or learning communities to help meet faculty online teaching development and support needs (Epper & Bates, 2001). Similar to Rogers' (2003) diffusion of innovations theory, communities of practice and learning communities encourage communication among members of a social network to learn about new ideas, objects, or practices. Through these communications, social learning occurs, influencing individual behavior and resulting in adoption or rejection of innovations (Rogers, 2003).

The study applied sociometric and phenomenological research methods to analyze elements of diffusion theory among synchronous and asynchronous Internet-based faculty (faculty). Specifically, the study's purpose was to identify with whom, how, and why faculty communicate about teaching online and how those interactions influence their perceptions and decisions about teaching and learning. Variables from Rogers' five stages of innovation-decision process framework (see Figure 1), as modified in Figure 2, aided interpretation of the study's results.

In this chapter, four sections categorize the study's findings: (1) interpretation of results, (2) limitations of the study, (3) implications for future research, and (4) implications for practice. The chapter concludes with a summary of the study's results.

Interpretation of Results

To understand the personal networks and communication methods represented in the study and discuss each research question finding, the quantitative and phenomenological findings were synthesized, then compared and contrasted to research findings described in the literature review. Overall, the phenomenological data reinforced the preliminary quantitative findings, however, a few anomalies were observed.

Surprisingly, conformity of the data with prior diffusion and knowledge research findings initially appeared. More striking contrasts between literature and study findings were anticipated due to unique internal and external characteristics frequently attributed to higher education faculty and their environments. As mentioned previously, internal and external elements can influence an individual's innovation-decision processes and communication channel usage.

Conformity of the study data with prior diffusion research findings further validated the research design and methodology. In addition, alignment of the study's findings with prior diffusion and knowledge research aided data interpretation.

Interpretation of Demographic Findings

The data indicated faculty participating in the study represent a heterophilous social network, teaching for different colleges and programs and representing different academic positions and appointments (see Appendix U and Appendix W). Based on both quantitative and qualitative findings, they possess different instructional beliefs, teaching experiences, and technology skills.

According to Rogers (2003), heterophilous communication patterns are essential to effectively diffuse information about new ideas, objects, and practices. However, heterophilous communication patterns can slow the rate of dispersion about innovations (Godes & Mayzlin, 2004). Therefore, the effectiveness of diffusion about teaching online innovations across the heterophilous social networks identified in the study can be more difficult. Additional research is necessary to determine the effectiveness of heterophilous communication patterns among study participants.

Participating faculty also represented a homophilous social network in three ways: (1) all teach at UCF, (2) all completed the university's professional development course, IDL6543, and (3) all have taught face-to-face prior to teaching online. These factors can contribute to homophilous communication patterns, such as shared vocabulary and social system norms, among members of the social network, potentially helping overcome heterophilous communication issues (Godes & Mayzlin, 2004). Further research to determine the effectiveness of homophilous communication patterns among study participants also is proposed.

Several faculty described not choosing to teach online originally but being told by their department to teach online, implying what Rogers (2003) terms an authority innovation-decision. As described in the literature, authority innovation-decisions result in the fastest rate of adoption, partially explaining the success of UCF's online initiative. Although teaching online may have been an authority innovation-decision for some participants, several of them now consider teaching online an independent individual decision, or optional innovation-decision. Deciding to teach online, like other innovations, is influenced by multiple variables, including faculty teaching philosophies,

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previous teaching experiences and preferences, technology skills, and attitude toward change (Jacobsen, 1998a, 1998b; Rogers, 2003). For example, James describes his technology skills as "pretty sophisticated," enabling him to be "pretty selective about the kinds of plans and activities" he does online. However, teaching online is contrary to his teaching philosophies, so James does not value technology in education "all that much" and no longer teaches online.

In contrast, some faculty participating in the study arrived at different optional innovation-decisions. Like James, these participants are experienced teaching online and using technology to meet course objectives; they understand which activities can be effective online. However, many of them described preferring mixed-mode, reduced seat time, or blended (M), courses to face-to-face or online courses. They depicted M courses as complementing their teaching philosophies and preferences, as well as addressing their concerns and issues about the absence of face-to-face interaction in fully online courses.

Some of the faculty who embraced teaching online before teaching at UCF, such as Lisa and Paul, appeared to have evolved their teaching methods to fully online environments. They augmented the loss of face-to-face contact with plenty of interaction. These participants also may represent opinion leaders within their personal and social networks due to their length of experience and knowledge, and may be viewed as role models, influencing online teaching communication and instructional behavior (Rogers, 2003). The study was not designed to identify opinion leaders or change agents.

The study illustrated several types of adopter characteristics among participants (Rogers, 2003, pp. 282-287). Although all faculty participating in the study cannot be categorized as innovators or early adopters, several began teaching online in 2000 or

earlier, before many colleges and universities adopted Internet-based course initiatives (Epper, 2001), indicating innovator characteristics, while the majority began teaching online in 2003 or earlier, demonstrating early adopter characteristics. In addition, a majority of the participants detailed extensive and diverse personal and social networks and indicated they discuss teaching online to get new ideas, characteristics of both innovators and early adopters. These interpretations indicate a high level of innovativeness among the majority of study participants, a condition determined by Rogers (2003) as necessary for individual discovery and knowledge of new ideas, objects, and practices.

This assumption may be asserted further based on the demographic responses to the interview instrument. For example, Michelle demonstrates innovator characteristics by commenting she's "always keen to try new things," while Lisa's use of computer-mediated instruction since the early 1970s and Paul's development of Internet-based courses in the early 1990s illustrate their innovativeness.

Likewise, Sara, as a self-described "second loop change agent," represents more of an early adopter attitude with her statement "I generally like to see at least a part of new things implemented prior to jumping in." Alison also demonstrates early adopter characteristics with such statements as "It's always fun to try something new. Sometimes it works, sometimes it doesn't work. But at least you try it and see what will help."

Conversely, Debbie, Emily, Julie, Tina, and Peter are more illustrative of early majority adopters, frequently interacting with colleagues to learn about new ideas and intentionally deliberating before adopting. While Ruth represents an innovator who transitioned to an early majority due to the norms of the tenure social system (e.g.,

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Internet-based instruction frequently is not as valued in the tenure process as research and publication). Now tenured, she speaks of reverting to her innovator roots by "learning some new tricks."

The majority of faculty interviewed described themselves primarily as senders of information about new teaching online ideas, while several indicated they are equally sender and receiver. Diffusion research portrays individuals who frequently initiate new ideas into their social networks as innovators; individuals demonstrating both sender and receiver attributes frequently illustrate early adopter or majority adopter characteristics (Rogers, 2003).

In addition to diffusion of innovations elements, the researcher considered sample selection in the description of faculty participants. Research volunteers possess several unique characteristics which can affect study results (Gall et al., 2003). Based on the responses of faculty providing personal network information, they appear sociable when discussing teaching online with several of them defining broad personal and social networks, indicating more connectedness within their social systems. Also, their interest in new instructional ideas, objects, and practices as described by several of the interview participants implies some potentially unconventional and less conforming approaches to teaching online and in the classroom. Similarly, Gall, Gall, and Borg (2003) portray research volunteers as: more intelligent and better educated, more sociable, more unconventional, less authoritarian, less conforming, and possess higher social class status yet require more social approval.

In addition, the study found more female faculty participated in the study than male even though the faculty population of UCF is 62% male (University of Central

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Florida Office of Institutional Research, 2004). "Females are more likely to volunteer than males" (Gall et al., 2003, p. 183).

Interpretation of Research Question One Findings

What personal networks do synchronous and asynchronous Internet-based faculty use to discuss teaching online?

Generalizing 15-faculty interview responses to 59 personal networks and 62 social networks supported the assertion the networks (see Appendix U and Appendix W) identified illustrate both heterophilous and homophilous communications about teaching online. Personal networks representing faculty who taught in the same college, department, and program, and/or shared similar educational backgrounds and teaching experiences or philosophies were interpreted as homophilous, while personal networks with dissimilar faculty were interpreted as heterophilous. As explained in the literature review, effective interpersonal communication and diffusion requires balancing heterophilous and homophilous interactions within personal or social networks. However, an individual's exposure to innovations depends on his/her connectedness within the heterophilous social network (Rogers, 2003).

For example, Michelle described a large personal network, which also linked her to two six-member and two five-member social networks (see Appendix K). This connectedness within both a large personal and several social networks assures her exposure to new ideas, objects, and practices. On the other hand, Paul, who described a large personal network, was linked to one of the five-member social networks (see Appendix J and Appendix K). Although he is very connected within his personal network, Paul may not be as connected within a social network, therefore may not receive

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as much exposure to new ideas, objects, and practices. However Paul's innovativeness may overcome low exposure.

Similarly, several participants indicated their offices are in close proximity to others in their personal network; a few participants stated they are related to members of their personal network. Both responses imply homophilous networks. Again, most personal networks are homophilous due to the close relational and spatial proximity of their members, as well as the interpersonal communication methods utilized. Proximity also creates a high level of connectedness and exposure among network members. Homophilous communications among members of a personal network frequently occur after an individual is exposed to an innovation, creating opportunities for social learning designed to influence the individual's innovation-decision (Rogers, 2003).

Some participants described their relationships with other members of their personal network as personal, while most of the relationships were described as professional, however, personal enough they know each others' children, spouses, etc. Based on these responses, the relationships between personal network members participating in the study were assumed to be strong, contributing to a balance of heterophilous and homophilous communications about teaching online (Rogers, 2003).

However, most faculty placed more importance on knowing and trusting experts than proximity or personal or professional relationships with network members. These preferences illustrated participants' comments regarding separation of life and work. However, as will be explored further, when individuals develop 24/7 schedules, life and work frequently meld.

Whether the networks are heterophilous or homophilous, as one interviewed faculty member observed, the flexibility and fluidity of these personal and social networks also should be considered. As Paul observed "it's probably a very dynamic ever changing model." Driven by personal needs, the number and diversity of network members occasionally fluctuated between the participant's quantitative and qualitative responses. These differences may illustrate the dynamic nature of faculty communication channel usage and the flexibility of their personal and social networks.

Both diffusion and knowledge literature addressed the flexibility and fluidness of networks. Diffusion research (Rogers, 2003; Valente, 1999) found some social networks form and re-form to meet social needs regarding innovation-decisions. According to knowledge research, network members frequently participate in multiple social networks simultaneously when seeking information about an innovation-decision (Erikson & Jacoby, 2003).

Interpretation of Research Question Two Findings

What communication channels do synchronous and asynchronous Internet-based faculty use to discuss teaching online and how do they use them?

Interpreting communication channel results required the most synthesis due to how the data wove throughout the study. Several items on both instruments provided opportunities for faculty to describe their communication channel selection and usage. In addition, participants frequently described communication preferences and usage when responding to other research questions. The literature review defined the study's communication channel focus on interpersonal communication channels, called word-of-mouth (WOM), including both face-to-face and written, print or electronic copy, sharing

of information (Godes & Mayzlin, 2004; Lee et al., 2002; Minsky & Marin, 1999). WOM communication often is considered more influential than mass media communication channels in an individual's innovation-decision process (Godes & Mayzlin, 2004; Lee et al., 2002; Minsky & Marin, 1999; Rogers, 2003).

Most faculty participating in the online survey and interview instruments used word-of-mouth, either face-to-face or e-mail, communication channels to discuss teaching online. When asked which communication method they prefer, most faculty interviewed preferred face-to-face, influencing their selection and use of communication channels (Lee et al., 2002; Minsky & Marin, 1999; Rogers, 2003). The number of synchronous and asynchronous Internet-based faculty who preferred face-to-face communication methods was verbalized by Alison who mentioned "Kind of interesting that it should be face-to-face when we're teaching online. Isn't that funny?"

Although a variety of variables may account for participating faculty's preference and use of face-to-face as a communication channel to discuss teaching online, a reasonable conclusion is the accessibility to other members within their personal networks due to their close relational or spatial proximities. Supporting this assertion is participating faculty's response most of their discussions occur on campus in their offices weekdays between 8:00 a.m. and 5:00 p.m. However, a majority of participating faculty also indicated they discuss teaching online whenever it is convenient for them, implying discussions are not limited to their offices or work schedules.

Interestingly, although a majority of online survey instrument participants indicated they primarily use these communication channels weekdays between 8:00 a.m. and 5:00 p.m., few faculty interviewed described 8:00 a.m. to 5:00 p.m. weekday work

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schedules. The majority of faculty interviewed described a more fluid schedule, almost

24 hours per day, seven days per week (24/7). The flexibility of a 24/7 schedule and

electronic communication methods, such as e-mail, aids in understanding how most

participating faculty's discussions occur during work hours.

In addition, most of their discussions about teaching online occur occasionally.

The majority of faculty interviewed indicated the infrequency of their discussions was

related to their online teaching experience. As these participants became more

knowledgeable and confident in their abilities, they were less inclined to discuss teaching

online with others.

Several interesting differences between survey and interview responses also were

discovered. For example, only one participant reported discussing teaching online 24/7

on the survey instrument. Yet, most of the faculty interviewed described flexible 24/7

work hours. They also described the e-mail accessibility of members within their

personal networks, explaining the communication channel enabled 24/7 word-of-mouth

(WOM) interaction. In the quantitative findings, a majority of faculty also described

discussions occurring whenever it is convenient for them (52 or 71.2%), as well as

between 8:00 a.m. and 5:00 p.m. (40 or 54.8%). However, fewer participants replied

these discussions occur weekdays (37 or 50.7%), again implying more of a correlation to

the 24/7 interview responses.

Perhaps the questionable accessibility aspects of their 24/7 work lives also explain

why so few faculty identified telephones or cellphones as preferable to e-mail as a

communication channel. As Peter stated, "I don't think we use the. . . phone hardly at

all. . . I check my e-mails probably sixty times a day, and if I remember to check my

messages on my phone every four or five days, I'm in good shape. So it's a problem. I've kind of forgotten how to use that. . ."

The researcher assumed faculty would prefer verbal interpersonal interaction and convenience to electronic word-of-mouth (WOM) given the quantitative data results. A 24/7 work schedule suggests needs arise at times outside the socially acceptable norms of telephone etiquette, explaining e-mail preference. The surprise often is receiving an immediate response, learning others within one's personal network adhere to similar 24/7 work hours as Peter described "I feel comfortable with anyone e-mailing me any time of the day or evening, and if I'm available checking my e-mails, I'll answer them." Such occurrences, with increases in the number of faculty transitioning to 24/7 work hours, merit more research about development and support services.

Whether differences between telephone/cellphone and e-mail usage reflected individual attitudes regarding communication channel selection and relationships with personal network members also was questioned. As Debbie mentioned "it's hard to talk about that through e-mail and telephone calls. It's kind of casual. . ." Perhaps relationships reflecting professional or superior-subordinate roles encourage more face-to-face communication.

The finding of most concern to the researcher were comments about decreases in discussions as faculty gain more experience. The importance of expert advice to many of the participants may reflect an organizational norm. If so, formation of communities of practice and learning communities depends on communication and participation of experienced faculty such as these. One of the challenges for administrators and educators

may be how to motivate more experienced faculty communication, especially with less experienced members.

Interpretation of Research Question Three Findings

What reasons do synchronous and asynchronous Internet-based faculty provide for why they do or do not discuss teaching online?

Faculty participants' responses when asked why they do or do not discuss teaching online clarified why they may experience a reduction in discussions over time. Most participating faculty indicated they discuss teaching online to exchange teaching online ideas, seek assistance or advice regarding teaching online, or to resolve problems. As Paul observed "I tend to discuss it more if something really good or really bad happens. Otherwise, it's become very routine."

As faculty gain more experience and knowledge about teaching online, their needs and problems also change. Like Paul, several faculty interviewed indicated as they become more capable and competent of resolving problems independently, completing knowledge transfer by applying information learned through discussions about teaching online (Darr & Kurtzberg, 2000). If the primary reason faculty discuss teaching online is to seek assistance or resolve problems, given faculty with these characteristics, their need for discussions will decrease until, as Paul says, "something out of the ordinary happens."

Interestingly, most responses indicated a focus on technology, rather than pedagogy, as a reason to discuss teaching online. Through their responses, faculty suggested they understand how to teach and what technologies best support their course objectives. However, the tacit knowledge required technologically to execute their instructional methods occasionally appeared to be lacking. Their just-in-time solutions

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frequently were discussions with an expert in their personal network. As Emily described, "if we have a problem, we talk. . . face-to-face usually. Sometimes I'll e-mail somebody. . . I know." As presented in the literature review, these discussions about teaching online also can be considered knowledge transfer (Darr & Kurtzberg, 2000).

Different teaching experiences from other faculty members and not enough time or being too busy can prevent faculty discussions about teaching online. As Emily stated "any more there's so much to know that I want to learn everything, but. . . we're all in such a 'need to know' basis. . . So it's catch-as-catch-can."

Time appeared as reason why faculty both do and do not discuss teaching online. When faculty have a few extra moments, they may indulge in discussions with colleagues. More often than not however, time prevented discussions, even e-mail. The time issue is interesting considering the 24/7 work hours. Apparently working more hours is not necessarily aiding the amount of time required to teach online.

Interpretation of Research Question Four Findings

How have discussions about teaching online among synchronous and asynchronous Internet-

based faculty influenced their perceptions and decisions about teaching and learning?

Most faculty acknowledged the social learning aspects of their discussions (Erikson & Jacoby, 2003; Godes & Mayzlin, 2004; Greenhalgh et al., 2005; Rogers, 2003). To most participants, these discussions about teaching online generally represented informal learning opportunities, acknowledging the importance of learning from other members of a social network (Eraut, 2004). As Emily said "We're always influencing each other's perceptions and decisions because if somebody has tried something with digital video and it seemed to really work. . . then we share it. We share

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each other's courses that we developed. We're always sharing ideas about that, and that's part of our own learning."

The majority of participants indicated being most influenced by discussions about uses of technology for instruction. Several participants also stated discussions about teaching online influenced their beliefs and teaching methods. However, if the faculty member already had a personal philosophy about teaching online or rarely discussed teaching online, the opportunity and probability of being influenced by such discussions diminished.

Most faculty interviewed prefer to learn about new ideas, objects, or practices through observation, seeing them modeled or demonstrated by an expert, then shown how to do it and observed as they practice. Although computer simulation could replicate most of this interaction, the interpersonal nature of the interaction seemed to be critical to many learners.

After learning of a new idea, object, or practice, most faculty interviewed prefer to try the innovation to determine if it would save them time and improve their teaching or student learning. Only if they considered the innovation to be advantageous did they adopt or adapt the idea. However, again, passage of time can impede their ability to try new ideas, objects, or practices. The learning preferences voiced by study participants reflected Jacobsen's (1998a) findings: most faculty prefer learning new technology knowledge and skills through hands-on experimentation.

To understand what, if any, communities of practice existed due to faculty discussions about teaching online, an interview item asked participants to provide examples of teaching online ideas they adopted or adapted. The influence of

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communication on social learning could imply formation of communities of practice (Lave & Wenger, 1991) or learning communities (Tu & Corry, 2002) at UCF. Based on the study's findings, faculty appeared to be forming "social networks and knowledge webs," enabling them "to connect with the right people at the right time and to build and share a body of information" (NMC: The New Media Consortium & National Learning Infrastructure Initiative, 2005, p. 18).

Several faculty described how discussions about teaching online provided better ideas for online course management, especially about chats, discussion forums, and large classes. Peter says he "constantly adds new exercises, discussions, or modules for interactive exercises in my courses based on material that I read or discussions I have with others who also teach online courses. . . I definitely borrow from my colleagues."

Participants also described the influence of student discussions and their contributions to their communities of practice or learning communities. Regardless of discipline or program, most faculty observed social learning resulting from their discussions about teaching online, even with students. As James stated "I probably originate ideas, more ideas, with my colleagues than I get from them, often because of ideas that I get from my doctoral students."

Multiple references to these types of examples imply some form of teaching online community of practice or learning community may exist at the University of Central Florida. Through these informal discussions and interactions, faculty participate in shaping and generating the university's social knowledge about teaching online and contributing to the formation of communities of practice and learning communities (Ardichvili et al., 2003; Lave & Wenger, 1991; Tu & Corry, 2002).

In contrast, participants confident in their own online teaching philosophy were not influenced by discussions with faculty holding opposing philosophies. This statement supported the prior interpretation faculty understand teaching, but desire development and support focused more on technology. Further research regarding formation of faculty teaching philosophies is required to understand how to incorporate pedagogical philosophy into technology development and support.

Limitations of the Study

The purpose of identifying limitations of the study is to present problems in the research methodology (Gall et al., 2003). In addition to the delimitations and limitations described in Chapter One, the following parameters define other study limitations.

While 30% of the sample population participated in the study, two weaknesses reduce generalizability of the findings: (1) very few fully online faculty participated in the study and (2) the lack of a majority response to most of the quantitative and qualitative items. Fully online faculty may provide insight into different communication channel preferences and usage based on their proximity and relationships with other university faculty. The diversity of participants also may influence responses, enabling the researcher to attain a majority opinion.

Although the research design was sufficient for the study, future studies should consider expanding data gathered through the survey instrument to include more qualitative data. While interviews with a sample of participating faculty greatly enhanced the researcher's understanding of their personal and social networks regarding discussions about teaching online, the smaller sample size may not be as generalizable or as descriptive as the responses of all participants.

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Soliciting a larger volunteer research sample also can significantly improve the field's understanding of faculty personal and social networks. Broadening the sample to include more universities or colleges or increasing availability of the survey instrument represent only two ways in which the sample can be increased. The general characteristics of research volunteers also can influence the findings due to their influence on research volunteers' perceptions and decisions (Gall et al., 2003).

Even though the researcher presented similarities and differences between the experiences and perceptions of participants and literature describing diffusion research, events described in the study were unique to participants, based upon their experiences, interpretations, and communication abilities. Therefore, the study is not generalizable to all synchronous and asynchronous Internet-based faculty teaching in metropolitan universities and could be subject to other interpretations based on an emphasis of different variables.

Furthermore, numerous internal and external organizational factors (such as social norms and values, etc.) can influence participants' responses. Due to the influence of such factors, attempting to replicate the results described in the study may not produce the same outcomes. Researchers should consider internal and external factors when employing the methods described in the study, adjusting the methodology as necessary for their educational environments.

<div align="center">Implications for Future Research</div>

The study presents a first research attempt to understand faculty's personal networks and the communication channels they use to discuss teaching online. The researcher makes several recommendations regarding future research:

- Formulate a study to identify what communication channels faculty innovators use to learn new ideas, objects, and practices.

- Design a study of faculty discussions with online students and the influence of those discussions on faculty's perceptions and decisions regarding teaching and learning to understand more fully faculty's adoption and rejection processes.

- Perform a case study of faculty discussions about teaching online to define more clearly social learning and the presence of communities of practice or learning communities.

- Diffuse a teaching online innovation into a pre-defined social network and track its progression through the entire social system.

- Research how relationships between personal network members influence communication channel usage and selection.

- Create a snowball sampling approach to this study to explore different aspects of faculty communication channels within their personal and social networks.

- Generate a study focusing on the age variables to discover how age influences faculty's communication channel preferences.

- Study the influence of the type of online initiative decision to faculty adoption or rejection of teaching online.

- Make a study of asynchronous faculty to evaluate similarities and differences in the findings.

- Alter the variables to explore other relevant variables influencing faculty's communication usage and preferences, such as faculty with less experience, less of an opinion leader.

- Develop several more studies in various educational environments to determine the construct validity of the instrument.

- Explore cross-university studies for relational information between and within departments and programs regarding faculty communications.

- Evaluate the effectiveness of both homophilous and heterophilous discussions about teaching online among study participants.

- Test both the online and interview instruments on other populations and in other educational environments with different online initiatives to identify any correlation between stage of innovation-decision maturity and frequency of discussions about teaching online.

- Examine each factor of the online and interview instruments for validity and reliability.

- Compare higher education institutions with differing online faculty support initiatives over a period of time to see how discussions about teaching online evolve over an extended period of time in different environments.

- Conduct focus groups to determine if different responses occur when faculty are asked to describe their discussions and personal networks as a group.

Implications for Practice

Identifying how a group of synchronous and asynchronous Internet-based faculty members communicate about new ideas relative to teaching online can aid educators and

administrators in understanding faculty development and support needs (Jacobsen, 1998b). Through improved understanding, educators and administrators can design and implement more effective development and support strategies to assist faculty (Rockwell et al., 2000). The following considerations for educators and administrators are based on the study's findings.

A lack of majority opinion among faculty studied reflects the uniqueness and individuality of faculty and their communication and learning needs. These differences in learning styles suggest multiple professional development and support approaches are required to meet a variety of faculty needs.

The issue of time was a recurring theme in both the online and interview instruments. Building professional development time and opportunities into faculty's schedules, similar to K-12 in-service days, can resolve faculty time concerns, as well as model the importance of life-long learning for students. In addition, the professional development opportunities need to be perceived as valuable by faculty. As discovered through the interviews, participants discussed teaching online less as they gained expertise. Similarly, if professional development opportunities are perceived as not meeting faculty needs, attendance, even if mandatory, may produce less than satisfactory results.

The tension between teaching, research, and publishing requirements, and developing technology skills to teach online effectively also needs to be addressed. Although developing technology skills competes with tenure-approved activities, eventually it should improve faculty's time management abilities by reducing technology skill-gap issues. According to Marx (Marx, 2005, p. 21), "a combination of workshops,

individual mentoring and various incentives" can be "used to entice faculty to explore

new and different ways of integrating technology into their teaching."

Altering of social networks within universities also needs to occur (Froman,

1999). Universities should focus on creating learning organizations, incorporating

interdisciplinary programs, integrative thinking, and gradually increase emphasis on

knowledge application (Froman, 1999). Garvin (1993, p. 80) defines a learning

organization as "skilled at creating, acquiring, and transferring knowledge, and at

modifying its behavior to reflect new knowledge and insights." Discipline and

departmental boundaries hinder the transfer of knowledge by segregating individuals

based on their social network affiliation (Froman, 1999). Such segregation often results

in reinforcement of preconceptions and beliefs about ideas (Froman, 1999). By removing

boundaries and realigning organization structure, university cultures can "be changed to

encourage and support learning organizations" (Froman, 1999, p. 187).

Perhaps most importantly, administrators and educators need to remember the

fluidity of communities of practice and learning communities. As faculty needs and

expertise evolve, so do the dynamics of their personal and social networks. Designing

systems to support such dynamics encourages faculty interaction and formation of

communities of practice and learning communities.

Summary

Rogers' (2003) diffusion of innovations theory provided the theoretical

foundation to investigate discussions about teaching online among synchronous and

asynchronous Internet-based faculty at the University of Central Florida. By exploring

faculty discussions about teaching online, the researcher discovered (1) their personal and

social networks, (2) their communication methods, (3) reasons why they do or do not discuss, and (4) how those discussions do or do not influence their perceptions and decisions regarding teaching and learning.

Similar to Jacobsen's (1998) findings, data from online survey and interview instruments of a volunteer sample of synchronous and asynchronous Internet-based faculty at UCF indicated most participants prefer to learn about online teaching innovations from individuals they know, consider expert, and have access. Generally, members of their personal and social networks represent many of these criteria.

Most participants preferred face-to-face discussions to e-mail, however, equally engaged in both to meet their innovation information needs. Electronic mail enables faculty to adapt discussions to meet their 24/7 work hours.

Discussions about teaching online frequently result due to faculty's desire to learn about new ideas or problem solve. Although time can contribute to their ability to discuss teaching online, more often time prevents faculty discussions.

Most faculty think discussions about teaching online with colleagues result in social learning. An expected outcome of diffusion theory, social learning frequently results when personal and social networks engage in discussions to achieve common goals (Rogers, 2003; Valente & Davis, 1999).

Often, these discussions can lead to formation of communities of practice or learning communities. Communities of practice and learning communities can contribute to scalable and sustainable faculty development and support structures. The study uncovered examples of social learning among participants, implying the formation of communities of practice or learning communities at the University of Central Florida.

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APPENDIX A:

DEFINITIONS

Identifying common definitions and interpretations for each of these terms in the literature can be challenging (Bannan-Ritland, 2002). The following definitions represent how the terms are used in the context of the research study.

Asynchronous

Indicates the instructor and learner do not communicate at the same time in a distance education environment (Picciano, 2001).

Communication channels

Communication channels describe the way information travels from one individual to another. Mass media and interpersonal channels are the two primary communication methods used to inform individuals of an innovation (Lundblad, 2003; Rogers, 2003).

Mass media channels. Mass media channels represent the transmission of information through a mass medium, such as magazines, newspapers, radio, and television. In the diffusion of innovations, use of mass media channels is best for reaching large audiences, creating knowledge and spreading information, and leading to changes in weakly held attitudes (Rogers, 2003).

Interpersonal channels. The interpersonal channel describes the face-to-face process of sharing information. The personal nature of this communication channel works best when diffusing information about innovations in two-way exchanges, or persuading individuals to form or change strongly held attitudes. "Diffusion is a very social process that involves interpersonal communication relationships" (Rogers, 2003, p. 19).

Communities of Practice (CoP)

Similar to learning communities, communities of practice (CoP) represent social learning resulting in knowledge transfer. Through informal conversations and networking activities focused on a common set of goals, individuals participate in shaping and generating social knowledge, contributing to the formation of communities of practice (Ardichvili et al., 2003; Lave & Wenger, 1991; Tu & Corry, 2002). Generation of knowledge occurs when network members actively participate in problem solving and share the information necessary to resolve the problems (Ardichvili et al., 2003). Proponents of communities of practice encourage individuals to discuss their knowledge and experiences relative to specific problems as a means of disseminating tacit knowledge (Ardichvili et al., 2003).

Connectedness

Connectedness refers to the number of members of a social system with whom an individual is affiliated by some relation (Valente, 1999, p. 43).

Course management system (CMS)

A course management system is "a set of computer software tools designed to enable users to create Web-based courses;" (Picciano, 2001, p. 243) also called courseware, BlackBoard, eCollege, WebCT, Collegis, etc.

Delivery technology

Delivery technology "packages and gives students access to necessary information and methods" (Clark, 1991, p. 35).

Development

Development describes training opportunities to aid faculty in becoming more proficient and successful to teach online (Epper & Bates, 2001).

Dialogue

Dialogue describes "an interaction or series of interactions having positive qualities that other interactions might not have" (Moore, 1993, p. 24).

Diffusion

Rogers (2003, p. 19) defines diffusion as the "transfer of ideas" through communication channels between two or more individuals.

Diffusion of innovations theory

Rogers (2003) describes diffusion of innovations as the study of communication processes within certain channels used over time to achieve understanding or reduce uncertainty regarding a new idea, object, or practice among individuals and organizations (Rogers, 2003; Valente, 1999).

Discussion and discussing

Discussion, and discussing, refers to the personal communications and interactions of individuals regardless of the method (i.e., face-to-face, electronic, telephone, etc.).

Dispersion

Dispersion describes the degree to which conversations about an innovation occur across a number of social networks (Godes & Mayzlin, 2004).

Distance education

Distance education is planned learning that normally occurs in a different place from teaching and as a result requires special techniques of course design, special instructional techniques, special methods of communication by electronic and other technology, as well as special organizational and administrative arrangements (Moore & Kearsley, 1996).

The University of Central Florida defines online courses primarily in three ways: (1) E courses which supplement classroom time, (2) M courses, also called mixed-mode or blended, which reduce classroom time, and (3) W courses which are normally asynchronous and delivered through Internet technologies (i.e., computers, Internet browsers, and networks). The definitions for these terms are:

E: Enhanced with media/electronic mail. "Courses are enhanced with the WWW or other electronic media-based materials. These courses do not reduce seat time with electronic instructions" (Sorg & Darling, 2000, p. 3).

M: Mixed-mode (Blended). "Courses require electronic media-based instruction that substitutes for some classroom time (reduced seat time). These courses have regular meeting times" (Sorg & Darling, 2000, p. 3).

W: World Wide Web (asynchronous, Internet-based). "Courses are delivered fully over the Internet. Students must have access to the Internet, a Web browser such as Netscape, basic Web browsing knowledge, ability to use e-mail, and basic computer skills such as word processing" (Sorg & Darling, 2000p. 3).

Innovation

An innovation is an idea, object, or practice an individual or community perceives as new (Rogers, 2003). Innovations do not have to be recently developed to be considered new; rather, new means the innovation was recently learned about by the individual or social system (Rogers, 2003).

Innovation-decision process

Rogers (2003) describes the innovation-decision process as an individual's progression through the five stages of deciding whether to adopt or reject a new idea: (1) knowledge, (2) persuasion, (3) decision, (4) implementation, and (5) confirmation. According to Rogers (2003), as members of a social system become knowledgeable about a new idea, object, or practice, they engage in communal problem solving to understand the innovation, make appropriate social system decisions, and achieve a common societal purpose.

Instruction

Instruction describes the purposeful organization of activities or events to assist the attainment of an instructional objective (Driscoll, 2000).

Instructional methods

Instructional methods describe research guided teaching practices or strategies (e.g., inquiry, direct and nondirective instruction, mastery learning, advance organizers, etc.); also called methods of instruction, models of instruction, models of teaching. "An instructional method is any way to shape information that compensates for or supplant the cognitive processes necessary for achievement or motivation" (Clark, 1991, p. 35).

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Instructional objectives

Instructional objectives describes specifically what a learner should know or be able to do after successfully completing the instruction; also called learning outcomes, learning objectives, instructional outcomes; also called educational outcomes, instructional outcomes, learning outcomes (Morrison, Ross, & Kemp, 2004).

Instructional technology

Describes the resources (hardware, software, materials) employed for instruction (Morrison et al., 2004). "Engineers both the information and the instructional methods required for the necessary psychological support of students as they learn" (Clark, 1991, p. 35).

Instructional theory

Answers what instructional method should be used when (Reigeluth, 1987).

Internet

Internet describes the worldwide network of networks providing a basic protocol standard to enable data communications systems to exchange data and information;, also called World Wide Web, WWW, Web, net (Picciano, 2001).

Internet-based courses

Internet-based courses describe teaching and learning delivered completely through the Internet (Sorg & Darling, 2000). Also called online courses.

Learner autonomy

Learner autonomy "is the extent to which in teaching/learning relationship it is the learner rather than the teacher who determines the goals, the learning experiences, and the evaluation decisions of the learning programme" (Moore, 1993, p. 31).

Learner-centered, or student-centered, instruction

Learner-centered instruction describes instructional and curricular methods which encourage and develop individual knowledge through the learner's personal and social educational experiences, supporting the learner's ownership of personal learning (Joyce, Weil, & with Calhoun, 2004).

Learning communities

Learning communities refer to groups of individuals joined in common learning objectives (Palloff & Pratt, 1999).

Medium (plural: media)

Medium describes the instructional technology system used to deliver instruction (Clark, 1994).

Network

Valente (1999, p. 43) defines a network as "the pattern of friendship, advice, communication, or support that exists among members of a social system."

Online

Online describes teaching and learning occurring through computers over the Internet (Picciano, 2001).

Personal networks

Personal networks are "the pattern of friendship, advice, communication, or support that exists among members of a social system" (Valente, 1999, p. 31).

Personal network exposure

"Personal network exposure is the degree an individual is exposed to an innovation through his or her personal network" (Valente, 1999, p. 43).

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Purposeful sampling method

A purposeful sampling method describes the intentional selection of "cases that are likely to be "information-rich" with respect to the purposed of the study" (Gall et al., 2003, p. 165).

Relational diffusion networks

Relational diffusion networks hypothesize "direct contacts between individuals influence the spread of an innovation" (Valente, 1999, p. 31).

Sequential explanatory mixed-method research design

A sequential explanatory mixed-method research design collects and analyzes the quantitative data before collecting and analyzing the qualitative data, allowing the researcher to expand the quantitative findings with the qualitative findings (Creswell, 2003).

Social cognitive learning theory

Social cognitive learning theory explains the influence of social networks and interaction on processes of learning and behavioral change (Bandura, 1977).

Social system or network

A group of individuals related through proximity and social characteristics compose a social system or network (Rogers, 2003; Valente, 1999).

Support

Support refers to both pedagogical and technological assistance for teaching online (Hartman & Truman-Davis, 2001).

Tacit knowledge

"Tacit knowledge is personal knowledge so thoroughly grounded in experience that it cannot be fully expressed" (Tschannen-Moran & Nestor-Baker, 2004).

Teacher-centered instruction

Teacher-centered instruction describes instructional and curricular methods which are controlled and directed by the teacher, creating a central role for the teacher and minimizing learner independence (Joyce et al., 2004).

Teaching online

Teaching online describes all activities and tasks required to teach a synchronous or asynchronous Internet-based course, including but not limited to developing course content, managing and facilitating course activities, and using technology tools (such as word processing, course management systems, e-mail, chat, etc.) (Palloff & Pratt, 1999).

Teaching strategies

Teaching strategies describes a group of activities and tasks exceeding the processes required to teach (Gredler, 2001).

Technology

Technology describes the hardware and software used to deliver instruction (Kozma, 1994).

Virtual

Virtual describes environments or states which are "functional and effective without existing in a traditional mode. Virtual learning, for example, is learning that can functionally and effectively occur in the absence of traditional classroom environment" (Picciano, 2001, p. 250).

APPENDIX B:

INSTITUTIONAL REVIEW BOARD FORMS

THE UNIVERSITY OF CENTRAL FLORIDA

INSTITUTIONAL REVIEW BOARD (IRB)

IRB Committee Approval Form

PRINCIPAL INVESTIGATOR(S): Dorothy Pick   **IRB #: 05-2571**

PROJECT TITLE: Identifying Faculty Personal Networks

[X] New project submission   [ ] Resubmission of lapsed project #_____
[ ] Continuing review of lapsed project #____   [ ] Continuing review of #____
[ ] Study expires _____   [ ] Initial submission was approved by expedited review
[ ] Initial submission was approved by full board review but continuing review can be expedited
[ ] Suspension of enrollment email sent to PI, entered on spreadsheet, administration notified _____

Chair   **IRB Co-Chairs:**
[X] Expedited Approval
        Dated: _26 APRIL 2005_   Signed: _Signature_
        Cite how qualifies for   Dr. Sophia Dziegielewski
        expedited review: APPROVED WITH clarifications
        minimal risk and ___#7___   outlined below.

[ ] Exempt
        Dated: _____   Signed: _____
        Cite how qualifies for   Dr. Jacqueline Byers
        exempt status:
        minimal risk and _____

[X] Expiration   [ ] Waiver of documentation of consent approved
        Date: _25 APRIL 2006_   [ ] Waiver of consent approved

NOTES FROM IRB CHAIR (IF APPLICABLE): _This proposal involves a mixed methods methodology (survey & interview) however non-sensitive information is being gathered in terms of the interview process. Signature_

① Researcher needs to clarify why consent says requires no longer than 30 minutes time, protocol says 30 to 45 minutes. (e-mail clarification is fine).
② Interviews What will be covered, how long?
③ How will faculty members that complete the survey be allowed to decline the interview? This is not clear in the consent or the protocol. Please clarify prior to implementation via e-mail.

Figure 18: The University of Central Florida Institutional Review Board Committee approval form received April 26, 2005.

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05-2771

THE UNIVERSITY OF CENTRAL FLORIDA

INSTITUTIONAL REVIEW BOARD (IRB)

IRB Addendum/Modification Request

INSTRUCTIONS: Please complete the upper portion of this form and attach all revised/new consent forms, altered data collection instruments, and/or any other documents that have been updated. The proposed changes on the revised documents must be clearly indicated by using bold print, highlighting, or any other method of visible indication. The Addendum/Modification must be sent the IRB Office: ATTN: IRB Coordinator, 12443 Research Parkway, Suite 302, Orlando, FL 32826, Email: IRB@mail.ucf.edu, Phone: 407-823-2901, Fax: 407-823-3299.

- **DATE OF ADDENDUM:** July 28, 2005 to IRB# 05-2571

- **PROJECT TITLE:** Identifying Faculty Personal Networks

- **PRINCIPAL INVESTIGATOR:** Dorothy Pick

- **MAILING ADDRESS:** 1156 Groveland Drive, Oviedo, FL 32766

- **PHONE NUMBER & EMAIL ADDRESS:** 407-823-4116 (work)/407-366-3208 (home)
  dpick@mail.ucf.edu

- **REASON FOR ADDENDUM/MODIFICATION:**
  Dissertation committee recommended instruments be created for online application and content validity review be performed prior to piloting instruments. Developing instrument for online application altered formatting and required creating an online consent form. Content validity review resulted in modifications to instrument items.

- **DESCRIPTION OF WHAT YOU WANT TO ADD OR MODIFY:**
  Please see attached for description of modifications.

This addendum form does NOT extend the IRB approval period or replace the Continuing Review form for renewal of the study.

| __ Approved | __ Disapproved | IRB Chair Signature | 8/7/2005 Date |
| __ Full Board | __ Chair Expedited | | |

Figure 19: The University of Central Florida Institutional Review Board Addendum/ Modification Request Approved August 7, 2005

05-2871

THE UNIVERSITY OF CENTRAL FLORIDA

INSTITUTIONAL REVIEW BOARD (IRB)

IRB Addendum/Modification Request

INSTRUCTIONS: Please complete the upper portion of this form and attach all revised/new consent forms, altered data collection instruments, and/or any other documents that have been updated. The proposed changes on the revised documents must be clearly indicated by using bold print, highlighting, or any other method of visible indication. The Addendum/Modification must be sent the IRB Office: ATTN: IRB Coordinator, 12443 Research Parkway, Suite 302, Orlando, FL 32826, Email: IRB@mail.ucf.edu, Phone: 407-823-2901, Fax: 407-823-3299.

- **DATE OF ADDENDUM:** September 1, 2005 to IRB# 05-2571

- **PROJECT TITLE:**
  - **Original Title**: Identifying Faculty Personal Networks
  - **New Title**: A Relational Diffusion Network Study of Synchronous and Asynchronous Internet-Based Faculty's Personal Network Exposure Models Related to Communication about Teaching Online

- **PRINCIPAL INVESTIGATOR:** Dorothy Pick

- **MAILING ADDRESS:** 1156 Groveland Drive, Oviedo, FL 32766

- **PHONE NUMBER & EMAIL ADDRESS:** 407-823-4116 (work)/407-366-3208 (home)
  dpick@mail.ucf.edu

- **REASON FOR ADDENDUM/MODIFICATION:**
  Findings from pilot study revealed several documents needed further clarification to insure participants of confidentiality and anonymity, as well as of reason for collecting confidential data.

- **DESCRIPTION OF WHAT YOU WANT TO ADD OR MODIFY:**
  Please see attached for description of modifications.

SECTION BELOW - FOR UCF OOR/IRB USE ONLY

This addendum form does NOT extend the IRB approval period or replace the Continuing Review form for renewal of the study.

____ Full Board ✓___ Chair Expedited   IRB Chair Signature _Jacqueline Byer_   Date _9/6/15_
          ✓ Expedited Review - Minor change to an expedited study

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Figure 20: The University of Central Florida Institutional Review Board Addendum/ Modification Request Approved September 6, 2005

Revised 02/05

05-2891

THE UNIVERSITY OF CENTRAL FLORIDA
INSTITUTIONAL REVIEW BOARD (IRB)

IRB Addendum/Modification Request

INSTRUCTIONS: Please complete the upper portion of this form and attach all revised/new consent forms, altered data collection instruments, and/or any other documents that have been updated. The proposed changes on the revised documents must be clearly indicated by using bold print, highlighting, or any other method of visible indication. The Addendum/Modification must be sent the IRB Office: ATTN: IRB Coordinator, 12443 Research Parkway, Suite 302, Orlando, FL 32826, Email: IRB@mail.ucf.edu, Phone: 407-823-2901, Fax: 407-823-3299.

■ **DATE OF ADDENDUM:** September 1, 2005 to IRB# 05-2571

■ **PROJECT TITLE:** A Relational Diffusion Network Study of Synchronous and Asynchronous Internet-Based Faculty's Personal Network Exposure Models Related to Communication about Teaching Online

■ **PRINCIPAL INVESTIGATOR:** Dorothy Pick

■ **MAILING ADDRESS:** 1156 Groveland Drive, Oviedo, FL 32766

■ **PHONE NUMBER & EMAIL ADDRESS:** 407-823-4116 (work)/407-366-3208 (home)
dpick@mail.ucf.edu

■ **REASON FOR ADDENDUM/MODIFICATION:**
Findings from pilot study revealed several documents needed further revisions to achieve an effective sample and collect appropriate data to address research questions.

■ **DESCRIPTION OF WHAT YOU WANT TO ADD OR MODIFY:**
Please see attached for description of modifications.

SECTION BELOW - FOR UCF OOR/IRB USE ONLY

This addendum form does NOT extend the IRB approval period or replace the Continuing Review form for renewal of the study.

____ Approved   ____ Disapproved

____ Full Board   ✓ Chair Expedited

IRB Chair Signature   Date

Tracy L Dietz
IRB Designated Reviewer   9/19/2005

Figure 21: The University of Central Florida Institutional Review Board Addendum/ Modification Request Approved September 18, 2005

APPENDIX C:

CONTENT VALIDITY PROCESS AND RESULTS

The researcher performed an electronic content validity review and discussion regarding question wording and intended assessment outcomes of the instruments with three groups of experts: 22 College of Education faculty who teach online and/or research methods courses, 10 doctoral students at the University of Central Florida, and an expert in personal network exposure research, Dr. Thomas W. Valente. Experts received electronic copies of the survey design specifications (Table 20), as well as study consent language and both data collection instruments (Appendix D, Appendix E and Appendix F). The cover e-mail requested experts (1) identify which instrument items assessed which research question outcomes and (2) examine the items based on the clarity of the question being asked. Clarification of responses was requested when needed.

Seven experts agreed to participate in face-to-face meetings to aid in better understanding their opinions about the instruments and suggested revisions. Face-to-face meetings were structured by: (1) providing a brief overview of the study and purpose of expert's participation during the first ten minutes of the interviews, (2) reviewing the instructions and each item of the instruments by asking the experts to explain in their own words what they believe the instructions were explaining and the items were asking during the next ten minutes, (3) encouraging experts to identify any sections, instructions, or items on the instruments they believed were confusing, ambiguous, or difficult to answer, and (4) focusing on brainstorming revised wording to clarify the instructions and items based on expert's perceptions of instruments' intent during the final ten minutes of the interviews (Ouimet, Bunnage, Carini, Kuh, & Kennedy, 2004).

Table 20: Survey Design Specifications

Research Question	Research/Theory Foundation	Subcategories	Data Collection Method/ Survey Item	Format	Data	Time Estimate
What personal networks do synchronous and asynchronous Internet-based faculty use to discuss teaching online?	Rogers Diffusion of Innovations: Communication Channels Coleman, Katz, and Menzel's (1966)	Personal Networks	Online Question-naire – Section I	Select names from list (2&3)	Nominal data	5 minutes
What communication channels do synchronous and asynchronous Internet-based faculty use to discuss teaching online and how do they use them?	Rogers Diffusion of Innovations: Communication Channels Coleman, Katz, and Menzel's (1966)	Type and use preferences: type, proximity, relationship	Online Question-naire – Section I	Multiple choice (4, 5, 6, 7)	Nominal and ordinal data	10 minutes
What reasons do synchronous and asynchronous Internet-based faculty provide for why they do or do not discuss teaching online?	Rogers Diffusion of Innovations: Communication Channels Jacobsen (1998a)	Innovation-decision process: prior conditions, characteristics of the decision-making unit, perceived characteristics of the innovation, etc.	Online Question-naire – Section II	Open-ended questions (10 & 11)	Phenomenol-ogical qualitative data converted to nominal data	10 minutes

Research Question	Research/Theory Foundation	Subcategories	Data Collection Method/ Survey Item	Format	Data	Time Estimate
How have discussions about teaching online among synchronous and asynchronous Internet-based faculty influenced their perceptions and decisions about teaching and learning?	Rogers Diffusion of Innovations: Innovation-Decision Social Learning Aspects Jacobsen (1998a)	Innovation-decision process: adoption, adaptation, or rejection; social cognitive learning	Online Question-naire and face-to-face Interview	Open-ended questions (Section I – 8 & 9) Open-ended questions (interviews)	Phenomenol-ogical qualitative data converted to nominal data (survey only)	30 minutes
Demographic information about participants	Rogers Diffusion of Innovations: Innovation-Decision process Coleman, Katz, and Menzel (1966) and Jacobsen (1998a)	Social system demographics	Online Question-naire	Multiple choice and Open-ended questions (Section I – 1; all others in Section III)	Nominal and ordinal data	5 minutes

In general, the experts concurred with the intended design of both the instruments (see Table 21 and Table 22). Although some of the experts providing advice were not familiar with Rogers' (2003) diffusion of innovations theory, most of them found the instructions sufficiently explained the purpose of the study and the desired responses. Based on these experts' insights, a Web site, linking relevant information about the study and the researcher to the instruments and participants, was designed and implemented. Participants received links to the Web site in each of the e-mails sent, as well as on the informed consent form and online survey.

Table 21: Expert Evaluations Regarding Online Survey and Interview Instruments

Instruments and Items	Evaluation Results
Survey instrument items 2 and 3 designed to assess outcomes to address research question one	31 experts concurred with intended design; two experts thought survey instrument item 2 to be demographic • Describing personal networks requires identifying both sender and receiver in communication channel • Therefore, item 5 determined to be appropriately aligned to assess research question one
Survey instrument items 4, 5, 6, and 7 designed to assess outcomes to address research question two	Experts concurred with intended design
Survey instrument items 10 and 11 designed to assess outcomes to address research question three	32 experts concurred with intended design; one expert thought survey instrument item 8 also addressed research question three. Survey instrument item 8 was revised to clarify its purpose.
Survey instrument items 13 and 14 and interview instrument items 1, 2 and 3 designed to assess outcomes to address research question four	Experts concurred with intended design
Survey instrument items 1 and 12 through 23 designed to collect demographic data	Experts concurred with intended design

Table 22: Comparison of Content Validity Responses of Experts and Intended Assessments

Research Question	Assessment Items	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Expert 7	Expert 8
What personal networks do synchronous and asynchronous Internet-based faculty use to discuss teaching online?	Survey 2 & 3	3	3	2 & 3	2 & 3	1 & 2	2 & 3	2 & 3	2 & 3
What communication channels do synchronous and asynchronous Internet-based faculty use to discuss teaching online and how do they use them?	Survey 4, 5, 6, 7	4, 5, 6, 7	4, 5, 6, 7	4, 5, 6, 7	4, 5, 6, 7	4, 5, 6, 7	4, 5, 6, 7	4, 5, 6, 7	4, 5, 6, 7
What reasons do synchronous and asynchronous Internet-based faculty provide for why they do or do not discuss teaching online?	Survey 10 & 11	10 & 11	8, 10, 11	10 & 11	10 & 11	10 & 11	10 & 11	10 & 11	10 & 11
How have discussions about teaching online among synchronous and asynchronous Internet-based faculty influenced their perceptions and decisions about teaching and learning?	Survey 8, 9; interview 1, 2, 3	8, 9; maybe inter-view 1 & 2	9; inter-view 1	8 & 9	8 & 9	8 & 9	8 & 9	8 & 9	8 & 9
Demographic information about participants	Survey 1, 12 - 23	1, 2, 12 - 23	1, 2, 12, 22	1, 12 - 23	1, 12	23	1, 12	23	1, 12

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Appearance and Ease of Completion. Eleven experts found the instruments to be easy to complete and understand. Most of these experts believed the instructions also provided the appropriate directions necessary for participants to complete easily the survey instrument.

However, a recurring theme expressed by several of the experts was concern about whether faculty participating in the study will feel comfortable providing the names of other faculty with whom they discuss teaching online. These experts also stated the pilot study should establish a typical faculty response for the research study, guiding revisions to the final instruments.

Item Clarity and Consistency. Several experts offered wording suggestions to improve instruction and item clarity, as well as alignment with the research questions. A few experts also identified grammatical inconsistencies within instructions or between items. Although all grammatical suggestions and wording to align items with the research questions were incorporated, the researcher evaluated each item clarity recommendation based on the purpose of the study and data required to address the research questions.

Beginning with the online survey, two experts suggested wording revisions to the consent entrance form. The substantive revision questioned the omission of electronically enhanced (E) courses from the description of the term teaching online. Originally, E courses were not considered in the description because the population from which the sample is identified must have taught a blended or fully online course. However, many of the faculty who teach blended or fully online courses also maintain Web sites for their traditional face-to-face courses. Therefore, to omit electronically

enhanced (E) courses from the description of teaching online may artificially limit responses regarding faculty experience discussing teaching online. The description for the term teaching online was modified to include E courses.

Three experts suggested re-wording the participation bullet on the consent form to explain clearly the survey and the interview research methods. In addition, to meet Institution Review Board consent guidelines, other wording modifications to the e-mail notifications, survey, and interview questions were made.

Three experts observed a discrepancy in the voice used for different section instructions. The initial voice was perceived as personal and friendly (e.g., you); while in later instructions, the voice is less personal and friendly (e.g., participants). The instructions were re-written to reflect a personal and friendly voice throughout.

One expert recommended moving four of the demographic items to precede question 1. As mentioned previously, Dillman (2000) emphasizes the importance of establishing trust with participants prior to asking personal or complex questions. Generally, demographic items are less intimidating, establishing a level of trust between the researcher and participants (Dillman, 2000). Subsequently, demographic items inquiring about participants' college, program, and teaching experiences moved from the third section to the first section of the survey instrument.

In addition, one expert recommended asking what year they first taught an online course and if they had ever co-taught an online course, and suggested allowing participants to write the number of years rather than offer a range from which to choose and asking for course names and numbers. Knowing when participants originally taught an online course or if they ever co-taught an online course, was determined to add value

to the demographic description of the participants. The two questions about teaching online courses were added to the first section of the instrument, following the other questions about years of teaching experience.

However, requesting course names and numbers was determined to be an impediment to making the instrument as easy as possible to complete, as well as preventing participants from leaving the instrument to locate information. In both scenarios, the risk of participants failing to complete and submit the form can be high (Dillman, 2000).

Four experts proposed expanding and limiting the population with whom the participants discuss teaching online. One expert suggested limiting the list to faculty members and allowing selection of multiple faculty and recommended asking from what organizations participants have sought advice about teaching online. Although the selection was limited to faculty members, allowing selection of up to six, participants also had the option of writing in other individuals or organizations with whom they discuss teaching online. For this reason, a separate question about organizations was not added for the pilot study instrument. Data from the pilot was used to determine whether to add organizations as a separate item.

Several experts suggested not limiting the list to faculty who completed the professional development course, IDL6543. Due to technology and time constraints, increasing the list to include all UCF faculty was not feasible. A text box in which participants could submit names of faculty or organizations not appearing on the list was provided. The instrument list was revised based on text entered during the pilot study.

One expert recommended not limiting the list of faculty with whom teaching online is discussed to university faculty. As mentioned previously, identification of UCF faculty with whom participants discuss teaching online was restricted for three reasons: (1) to keep personal network models efficient and manageable, (2) to assess the personal network exposure within the university, and (3) to assess faculty communication channels within the university. In addition, Jacobsen's (1998b) study found faculty most frequently ask colleagues within their university for assistance with incorporating technology in teaching. Limiting the focus to discussions within the university was believed to enable confirmation of Jacobsen's (1998b) findings.

Another expert questioned the bias of not asking if discussing teaching online has influenced their teaching before asking about how their teaching has changed. The item "Do you believe discussing teaching online with other UCF faculty has influenced your perceptions and decisions about teaching and learning?" was added to address this comment. If the participant responds "Yes," he/she will be directed to item "How do you believe discussing teaching online has influenced your perceptions and decisions about teaching and learning?" If the participant responds "No," he/she will be directed to item "Why do you believe discussing teaching online has not influenced your perceptions and decisions about teaching and learning?"

Three experts suggested edits to the items about what encourages and discourages discussing teaching online. Based on these recommendations, the items were modified "Why do you discuss teaching online with other UCF faculty members?" and "Why do you not discuss teaching online with other UCF faculty members?"

One expert suggested clarifying the questions about the number of students in a course. The concern was the word "average" may be perceived as an arithmetic mean rather than how many students the participant generally has in a course. The question was revised to ask how many students are in their blended and full online courses.

Generally, most of the experts believed the interview items to be clear and consistent with the research questions and the survey instrument. However, several experts inquired whether the interview items were to be modified based on the quantitative data. Based on their research experiences, these experts believe the interview items should in large part be determined based on the quantitative data. Therefore, the final interview items were based on the results of the quantitative data analysis.

One expert suggested adding a fifth item to the interview: "Is there anything else you would like to tell me to help me understand your experience discussing teaching online?" The suggestion was added to the interview instrument.

Response Categories. Five experts questioned the need for faculty to rank their responses regarding communication channels. Although these experts believed the instructions and example adequately explained the desired response, they inquired as to the value of the ranked data versus the complexity of the response. Subsequently, the responses for these questions were modified to "Yes" and "No."

One expert recommended deleting "department" prior to "meeting" to avoid limiting selection to only department meetings. Therefore, the item was revised to reflect this recommendation.

Three experts suggested re-wording the item about how often faculty discuss teaching online. Based on the feedback of these experts, the options were revised: "rarely, occasionally, often, very often, and other."

The recommendations for revisions to the instruments also necessitated revising the informed consent and corresponding e-mails. After revising both instruments, the informed consent, and the corresponding e-mails, the researcher submitted on July 28, 2005, an addendum to the University of Central Florida's Institute Review Board (IRB), highlighting the proposed changes.

APPENDIX D:

ONLINE INFORMED CONSENT FORM

<p style="text-align: center">Informed Consent for
Faculty Discussing Teaching Online Survey[1]</p>

~~Welcome!~~

Thank you for <u>volunteering to participate</u> [considering participating] in my ~~dissertation~~ research <u>study</u> about [with whom and] <u>how</u> faculty discuss teaching online. For the purposes of this study, the term discuss is defined as communication about any aspect of teaching online between two or more people (whether [mentoring,] face-to-face, telephone, e-mail, letter, memo, etc.). The term teaching online is defined as all activities and tasks required to teach a mixed-mode, reduced seat time (M), ~~or asynchronous Internet-based~~ World Wide Web (W), <u>or Web-enhanced (E) course</u>, including but not limited to developing course content, managing and facilitating course activities, and using technology tools (such as word processing, course management systems, e-mail, chat, etc.).

Information gathered about participants will be treated confidentially. Most of the data gathered through this survey will be reported as aggregate group data. The personal network exposure data will be reported in a model format with individuals represented numerically. No legend explaining the relationship between the numerical representation and the participants' information will be provided.

[The purpose of the research study is to identify with whom and how faculty who teach World Wide Web (W) or mixed-mode, reduced seat time (M) courses discuss new online teaching ideas. Rogers (2003) diffusion of innovations theory provided the theoretical foundation for the pilot research study. Based on findings from diffusion of innovations research, understanding who and how information is communicated enables the researcher to describe how new ideas are discovered and dispersed among members of a group.]

[In the case of support for faculty teaching online, understanding how members of a group learn about and communicate new ideas can lead to improved administrative support strategies and identification of learning communities. However, very little research exists about the communication channels and processes online faculty employ to seek assistance with teaching online. You can contribute to enhancing available literature by participating in my research study.]

<u>The online questionnaire questions are</u> [is] <u>anticipated to require approximately 30 to 45 minutes of your time, depending upon your personal experiences.</u> [Because this is a study of your personal communication experiences discussing teaching online, I ask you to identify yourself and at least one other UCF faculty member with whom you discuss teaching online. However, to participate in the study you are not required to provide your name or the name(s) of anyone with whom you discuss teaching online.]

[If you provide your name, to protect your anonymity and the confidentiality of your responses, it will be manually converted to a number. The list of your and other participants' names is then destroyed so individual names can never be connected to the results in any way. Protecting the

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[1] Strikethrough text represents wording included in the content validity process informed consent but revised for the pilot test. Underlined text represents wording included in the pilot test informed consent but revised for the study. Wording appearing in brackets also represents text added to the study's informed consent.

confidentiality of faculty responses, such as yours, is very important to me, as well as the University.]

[A list of names for other UCF M and W faculty with whom you may have discussed teaching online is provided only for convenience. Any name(s) of faculty you identify as someone with whom you discuss teaching online will be automatically converted to numbers when the form is submitted, ensuring their anonymity. Only I will have access to the data, which I will personally analyze, removing any identifiers during analysis. Once analysis is complete, the data will be erased.]

[If you provide your name and/or the name(s) of others, you and they will be represented numerically in a personal network, and potentially a social network, model, illustrating communication patterns among M and W faculty like you. Here is an example of a personal network and social network model. No legend identifying you or others based on the numerical representation will be provided.]

[Providing your valuable communication experiences for the study will help me accurately describe the personal networks M and W faculty, such as yourself, employ to discover and discuss new online teaching ideas. I would greatly appreciate your taking a few moments to complete my questionnaire. By doing so you will help insure the study will have the best information possible. Although only 10% (12) of the faculty invited to participate in my pilot study responded, I immediately discovered two social networks, illustrating the diffusion of new online teaching ideas and potential learning communities. Imagine the number of potential learning communities which can be identified from a larger sample if you choose to participate!]

[My research study is a mixed methods, so] a small sampling of questionnaire participants will be asked to participate in an interview lasting no longer than 30 [45] minutes. If you are identified and agree to participate in the secondary interview process, you will receive a copy of the interview questions shortly after the interview is scheduled. Your interview will be conducted in person at your office, by telephone, or e-mail, whichever method is most convenient for you. For faculty being interviewed at their offices, with your permission, I would like to audiotape to ensure the accuracy of your responses. Only I will have access to the tape, which I will personally transcribe, removing any identifiers during transcription. The tape will then be erased.

You do not have to answer [need not respond to] any question you do not wish to answer [in either the online questionnaire or the interview]. Your responses for both the online questionnaire and interview are completely confidential and will be released only as summaries in which no individual's answers can be identified. If chosen for the smaller interview sample, you are not required to participate. You are free to withdraw your consent to participate and may discontinue your participation in the online questionnaire or interview at any time without consequence. Your identity will be kept confidential and will not be revealed in the final manuscript. There are no anticipated risks, compensation, or other direct benefits to you as a participant in this survey and interview.

This pilot study [I also want to assure you your participation in this study] is voluntary. However, you can help me very much by taking a few moments to share your perceptions and experiences regarding discussions with colleagues about teaching online. To participate in this pilot study [If you would like to join in this research study], please check the "Yes" box at the top of the [online] questionnaire [(http://teach.ucf.edu/survey/) before October 31, 2005. The "User name" is

"faculty" and the "Password" is "enter" (both all lower case)]. ~~By clicking the "Enter" button below~~ To participate in this pilot study, please check the "Yes" box at the top of the questionnaire. By ~~clicking~~ checking the ~~"Enter" button below~~ "Yes" box, you are stating you:

- Read the research procedures for the "Discussing Teaching Online Survey" and corresponding research study information described in the e-mail which provided you the link to this survey.
- Voluntarily agreed to participate in the survey for this research study[, understanding you are not required to answer any question you do not wish to answer].
- Voluntarily agreed to consider participating, ~~possibly~~ if requested, in a follow-up interview for this research ~~project~~ study. Remember, if identified for the smaller interview sample, you are not required to participate or to answer any question you did not wish to answer.
- Gave me permission to report your responses anonymously in the final ~~dissertation~~ research manuscript ~~to be submitted to my faculty supervisor and dissertation committee~~.
- Were free to withdraw your consent to participate and could discontinue your participation in the questionnaire or interview at any time without consequence.

[A note about myself: In addition to being a doctoral student, I am an Instructional Designer in Course Development and Web Services. This study is designed to meet the requirements of my Doctor of Education (Ed.D.) dissertation and not related to my employment at CDWS. My desire to provide outstanding customer support to faculty delivering online courses is why I began the doctoral program at UCF, as well as why I chose this dissertation topic. I believe understanding how faculty communicate and learn about new online teaching ideas is essential to defining and executing a successful customer service strategy. Whether or not you decide to participate in this study will not influence me or other Course Development and Web Services staff. I remain committed to providing you outstanding customer service.] If you have any questions about this study, please contact me at dpick@mail.ucf.edu or call (407) 823-4116. I would be happy to speak with you.

Questions or concerns about research participants' rights may be directed to the UCFIRB office, University of Central Florida Office of Research, Orlando Tech Center, 12443 Research Parkway, Suite 207, Orlando, FL 32826. The phone number is (407) 823-2901.

[I hope you decide to participate in this study. I look forward to learning about with whom and how you discuss teaching online.] Thank you very much for helping with this important study!

Dorothy Pick
Doctoral Candidate
Curriculum and Instruction

APPENDIX E:

ONLINE SURVEY INSTRUMENT AND CODING

Faculty Discussing Teaching Online Survey[2]

Informed Consent

Please read the informed consent document. If you wish to participate in the study indicate so by affirmatively answering: I read the informed consent and voluntarily agreed to participate in this study as described in the informed consent.

	Variable	Code
Yes		1

Section I: Teaching and Discussing Teaching Online Experiences

This section of the questionnaire asks about you and your discussions with other UCF ~~instructors~~ faculty about teaching online. The term discuss is defined as ~~two-way~~ communication about any aspect of teaching online between two or more people (whether face-to-face, telephone, e-mail, letter, memo, etc.)~~, about any aspect of teaching online~~. The term teaching online is defined as all activities and tasks required to teach a ~~blended~~ mixed-mode, reduced seat time (M), ~~or asynchronous Internet-based~~ World Wide Web (W), or Web-enhanced (E) course, including but not limited to developing course content, managing and facilitating course activities, and using technology tools (such as word processing, course management systems, e-mail, chat, etc.). ~~Please select or write the response best representing your experience or opinion.~~

Remember, all information gathered about ~~participants~~ you and those with whom you discuss teaching online will be treated confidentially. Only aggregated group data will be reported.

1. ~~13.~~ How many years have you been teaching (in any format) ~~undergraduate or graduate students~~ in higher education?

    Coded numerically based on participant responses

2. ~~14.~~ How many years have you been teaching at UCF?

    Coded numerically based on participant responses

3. In what year did your first teach an online course?

    Coded numerically based on participant responses

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[2] Strikethrough text represents wording included in the content validity online instrument but revised for the pilot test. Underlined text represents wording included in the pilot test online instrument but revised for the study. Wording appearing in also represents text added to the study online instrument.

4. <u>Have you ever co-taught an online course?</u>

   Coded numerically based on participant responses

5. ~~12.~~ For which University of Central Florida (UCF) college ~~department and program~~ do you teach?

Variable	Code
College of Arts and Sciences	1
College of Business Administration	2
College of Education	3
College of Engineering and Computer Science	4
College of Health and Public Affairs	5
Rosen College of Hospitality	6

6. ~~12~~ <u>For which department and program do you teach?</u>

Variable	Code
Child, Family, and Community Sciences	1
Communicative Disorders	2
Criminal Justice and Legal Studies	3
Economics	4
Educational Research, Technology and Leadership	5
Educational Studies	6
Engineering Technology	7
English	8
Health Professions	9
Hospitality Operations	10
Management Information Sciences	11
Modern Languages and Literatures/TESOL Program	12
Communication, Speech	13
Nursing	14
Philosophy	15
Physics	16
Political Science	17
Public Administration	18
Psychology	19
Sociology	20
Social Work	21
Teaching and Learning Principles	22
Technical Education & Industry Training	23
Women's Studies	24
No Program Provided	25

7. 1. On average, how many hours per day do you spend using a computer for any purpose? Select one response best representing your experience.

Variable	Code
less than one hour	1
1 to 3 hours	2
3 to 5 hours	3
5 to 10 hours	4
10 to 15 hours	5
more than 15 hours	6

Questions 2 8 and 3 9 ask about you and UCF ~~instructors~~ faculty with whom you discuss teaching online. The information from this part of the survey will be used to develop a network model illustrating who communicates with whom about teaching online. Creating this model requires asking ~~respondents~~ you to identify ~~themselves~~ yourself and ~~list~~ those with whom ~~they~~ you discuss teaching online.

Remember, [you do not have to respond to these questions to participate in the study. Also,] ~~each person identified in this section~~ your name and the names of any faculty with whom you discuss teaching online will be represented ~~by a random number within the model~~ in the network model numerically. No legend or other information will be ~~used~~ provided to enable anyone to identify ~~the participants or the individuals with whom they discuss teaching online~~ you or anyone else you identify.

Please select or write the response best representing your experience or opinion.

8. 2. Please ~~select~~ type your first and last name. [Remember, you do not have to respond to this question to participate in this study. Also your name will be manually converted to a number to protect your anonymity and the confidentiality of your responses. Only numerical data will be reported.]

        Coded numerically based on participant responses

9. 3. [The following list of names for UCF M and W faculty is provided only for convenience. Remember, you do not have to respond to this question to participate in this study. Any name(s) of faculty you identify will be automatically converted to numbers when you submit the form , ensuring their anonymity and confidentiality. Only numerical data will be reported.]

    If you wish to discuss teaching online with another UCF ~~instructor~~ faculty member, on whom are you most likely to call? Please select ~~all that apply~~ one UCF faculty member from each column up to six faculty members.

        Code not provided for anonymity of participants

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Considering ~~the discussions~~ your conversations about teaching online with those UCF ~~instructors~~ faculty you mentioned ~~above~~ [in item 9], questions ~~4~~ 10 through ~~7~~ 13 address how you discuss teaching online. For each question, please ~~rank (1 being most used; 8 being least used) the response most accurately reflecting your experience. For example, responding to question #4, my response might be:~~

	UCF Instructors	A	B	C	D	E	F	G
a.	Face-to-Face	1	2	2	3	2	3	3
b.	Telephone	3	3	1	1	1	2	2
c.	Letters	7	7	7	7	7	7	7
d.	Memos	8	8	8	8	8	8	8
e.	Cellphone	5	5	5	5	5	5	5
f.	e-mail	2	1	3	2	3	2	2
g.	Other(s) - Please list: IM	6	6	6	6	6	1	1

(example table shown with strikethrough)

Please select or write the response best representing your experience or opinion.

10. ~~4.~~ Of those UCF ~~instructors~~ faculty members ~~(A — F)~~ with whom you discuss teaching online, what communication methods do you ~~prefer to~~ use most often? Please select [check] yes, or write the response best representing your experience or opinion, to indicate each of the methods you use to discuss teaching online with that UCF faculty member. ~~Please rank (1 being most used; 10 being least used).~~

	UCF Instructors	A	B	C	D	E	F	G
a.	Face-to-Face	aA	aB	aC	aD	aE	aF	aG
b.	Telephone	bA	bB	bC	bD	bE	bF	bG
c.	Letters	cA	cB	cC	cD	cE	cF	cG
d.	Memos	dA	dB	dC	dD	dE	dF	dG
e.	Cellphone	eA	eB	eC	eD	eE	eF	eG
f.	e-mail	fA	fB	fC	fD	fE	fF	fG
g.	Instant Messenger	gA	gB	gC	gD	gE	gF	gG
h.	Online Chats	hA	hB	hC	hD	hE	hF	hG
i.	Blogs	iA	iB	iC	iD	iE	iF	iG
j.	Other(s) - Please list:	jA	jB	jC	jD	jE	jF	jG

11. ~~5.~~ Where are you when you discuss teaching online with those UCF ~~instructors~~ <u>faculty members ~~(A — F)~~? Please select [check] <u>yes, or write the response best representing your experience or opinion, to indicate each of the places you are most likely to discuss teaching online with that UCF faculty member.</u> ~~Please rank (1 being most used; 7 being least used).~~</u>

	UCF Instructors	A	B	C	D	E	F	G
a.	On Campus	aA	aB	aC	aD	aE	aF	aG
b.	In Our Offices	bA	bB	bC	bD	bE	bF	bG
c.	In a Conference Room	cA	cB	cC	cD	cE	cF	cG
d.	At Home	dA	dB	dC	dD	dE	dF	dG
e.	In My Car	eA	eB	eC	eD	eE	eF	eG
f.	At Conferences, Workshops, etc.	fA	fB	fC	fD	fE	fF	fG
g.	Other(s) - Please list:	gA	gB	gC	gD	gE	gF	gG

12. ~~6.~~ When do you discuss teaching online with those UCF ~~instructors~~ <u>faculty members ~~(A — F)~~? Please select [check] <u>yes, or write the response best representing your experience or opinion, to indicate each of the times you are most likely to discuss teaching online with that UCF faculty member.</u> ~~Please rank (1 being most used; 10 being least used).~~</u>

	UCF Instructors	A	B	C	D	E	F	G
a.	During ~~Department~~ Meetings	aA	aB	aC	aD	aE	aF	aG
b.	Before ~~Department~~ Meetings	bA	bB	bC	bD	bE	bF	bG
c.	After ~~Department~~ Meetings	cA	cB	cC	cD	cE	cF	cG
d.	When Commuting	dA	dB	dC	dD	dE	dF	dG
e.	Whenever It Is Convenient for Me	eA	eB	eC	eD	eE	eF	eG
f.	Weekdays	fA	fB	fC	fD	fE	fF	fG
g.	Weekends	gA	gB	gC	gD	gE	gF	gG
h.	Between 8 am to 5 pm	hA	hB	hC	hD	hE	hF	hG
i.	After 5 pm and before 8 am	iA	iB	iC	iD	iE	iF	iG
j.	Other(s) - Please list:	jA	jB	jC	jD	jE	jF	jG

13. ~~7.~~ Of those UCF ~~instructors~~ faculty members ~~(A — F)~~ with whom you discuss teaching online, how often do you have these discussions? <u>Please select [check] yes, or write the response best representing your experience or opinion, to indicate each of the times you are most likely discuss teaching online with that UCF faculty member.</u> ~~Please rank (1 being most used; 9 being least used).~~

	UCF Instructors	A	B	C	D	E	F	G
a.	~~Daily~~ Rarely	aA	aB	aC	aD	aE	aF	aG
b.	~~Weekly~~ Occasionally	bA	bB	bC	bD	bE	bF	bG
c.	~~Bi-Weekly~~ Often	cA	cB	cC	cD	cE	cF	cG
d.	~~Monthly~~ Very Often	dA	dB	dC	dD	dE	dF	dG
~~e.~~	~~Quarterly~~	eA	eB	eC	eD	eE	eF	eG
~~f.~~	~~Half-Yearly~~	~~fA~~	~~fB~~	~~fC~~	~~fD~~	~~fE~~	~~fF~~	~~fG~~
~~g.~~	~~Annually~~	~~gA~~	~~gB~~	~~gC~~	~~gD~~	~~gE~~	~~gF~~	~~gG~~
~~h.~~	Other(s) - Please list:	~~hA~~	~~hB~~	~~hC~~	~~hD~~	~~hE~~	~~hF~~	~~hG~~
e.								

Section II: Why Discuss Teaching Online

~~Please elaborate on what encourages you to discuss teaching online: One of the goals of this study is to gather information about why faculty members do or do not discuss teaching online.~~ <u>Questions 14 and 15 ask about why you do or do not discuss teaching online. Please take the time to explain why you do or do not discuss teaching online.</u>

14. ~~10. Please elaborate on what encourages you to discuss teaching online:~~ <u>Why do you discuss teaching online with other UCF faculty members?</u>

  Coded numerically based on participant responses

15. ~~11. Please elaborate on what discourages you to discuss teaching online:~~ <u>Why do [would] you not discuss teaching online with other UCF faculty members?</u>

  Coded numerically based on participant responses

<u>One of the goals of this study is to discover whether discussions about teaching online among UCF faculty influences their perceptions and decisions about teaching. Questions</u> ~~8 and 9~~ <u>16 through 18</u> [16 and 17] <u>ask about</u> ~~how discussing~~ <u>your experiences regarding discussions with other UCF faculty about</u> teaching online ~~influences your teaching and perceptions about student learning~~ <u>with other UCF faculty</u>. Please take the time to ~~elaborate on the changes you have observed in your teaching and student learning as a result of~~ <u>explain your experiences based on</u> discussions about teaching online.

16. Do you believe discussing teaching online with other faculty members has influenced your perceptions and decisions about teaching and learning?

<div align="center">

Variable	Code
Yes – Please answer Question 17	1
No – Please answer Question 18	2

</div>

17. 8. [16] How do [If] you believe discussing teaching online has ~~changed your teaching~~ influenced your perceptions and decisions about teaching and learning [. how has it influenced you]?

Coded numerically based on participant responses

18. ~~9. How do you believe discussing teaching online has changed your perceptions about student learning?~~ [17] Why do [If] you believe discussing teaching online has not influenced your perceptions and decisions about teaching and learning [, how has it not influenced you]?

Coded numerically based on participant responses

Section III: Participant Information

~~The next group of questions asks you for demographic information.~~ Questions 19 through 27 [18 through 26] ask you for demographic information. This information is needed to explain the network model described in Section ~~II~~ I. Please select or write the response best representing your experience of opinion.

19. 15. [18] How many years have you been teaching ~~blended~~ mixed-mode, reduced seat time (M) courses at UCF?

<div align="center">

[Variable	Code]
<1 year	1
1-2 years	2
3-4 years	3
5-6 years	4
7-8 years	5
9-10 years	6
> 10 years	7

</div>

20. ~~16. What is the average number of~~ [19] <u>How many</u> undergraduate/graduate students <u>do</u> you teach in a single section of a ~~blended~~ <u>mixed-mode, reduced seat time</u> (M) course in one semester?

Variable	Code
<20	1
21-30	2
31-40	3
41-50	4
51-60	5
61-70	6
71-80	7
81-90	8
91-100	9
>100	10
Not applicable	11

21. ~~17.~~ [20] How many years have you been teaching fully online (W) courses at UCF?

[Variable	Code]
<1 year	1
1-2 years	2
3-4 years	3
5-6 years	4
7-8 years	5
9-10 years	6
> 10 years	7

22. ~~18. What is the average number of~~ [21] <u>How many</u> undergraduate/graduate students <u>do</u> you teach in a single section of a fully online (W) course in one semester?

Variable	Code
<20	1
21-30	2
31-40	3
41-50	4
51-60	5
61-70	6
71-80	7
81-90	8
91-100	9
>100	10
Not applicable	11

23. ~~18.~~ [22] How many graduate students do you currently supervise?

Variable	Code
1-2	1
3-4	2
5-6	3
7-8	4
9-10	5
Other	

24. ~~19.~~ [23] What is your current academic position?

Variable	Code
Professor Emeritur/ Emerita	1
Professor	2
Assistant Professor	3
Associate Professor	4
Visiting Professor	5
Instructor	6
Visiting Instructor	7
Adjunct Faculty	8

25. ~~21.~~ [24] What type of appointment do you hold?

Variable	Code
Tenured	1
Leading to Tenure	2
Sessional Contract	3
Temporary or Limited/Contingent Term Contract	4
[Visiting Professor	5]
[Instructor	6]
[Visiting Instructor	7]
~~Not Applicable~~ Other	8

26. ~~22.~~ [25] What is your gender?

Variable	Code
Female	1
Male	2

27.   [26] <u>What is your age in years?</u>

	Variable	Code
20-29		1
30-39		2
40-49		3
50-59		4
60-69		5
>70		6

<u>You are invited to use this space to elaborate on any item in this questionnaire. If you prefer, you can send me a separate e-mail (dpick@mail.ucf.edu) with your comments.</u>

   <u>Not coded</u>

<u>Please select "Yes" or "No" below to indicate whether you would like to receive a copy of the final dissertation manuscript which will be submitted to the committee.</u>

Variable	Code
<u>Yes</u>	<u>1</u>
<u>No</u>	<u>2</u>

<u>Thank you again for participating in my research study! The success of my research project depends on the generous support and contributions of faculty such as you. I appreciate your time and experiences.</u>

<u>Regards,</u>
<u>Dorothy Pick</u>
<u>Doctoral Candidate</u>
<u>Curriculum and Instruction</u>
<u>(407) 823-4116</u>
<u>dpick@mail.ucf.edu</u>

APPENDIX F:

INTERVIEW INSTRUMENT

DISCUSSING TEACHING ONLINE INTERVIEW QUESTIONS[3]

~~One of the goals of this study is to gather information about the "lessons learned" or methods which have been shared and found to be effective for teaching online. Please elaborate on some of the teaching online "lessons learned" or methods you used and integrated into your online teaching.~~
1. ~~What "lessons learned" or methods have you used and integrated into your online teaching?~~
2. ~~What changes to student learning do you observe as a result of integrating "lessons learned" or methods into your online teaching?~~
3. ~~How do you determine whether the use and integration of "lessons learned" or methods is having the intended/desired effects? In other words, how do you "know" the "lessons learned" or methods you used "worked," and when they did not?~~
4. ~~Is there anything else you would like to tell me to help me understand your experience discussing teaching online?~~
5. ~~4.~~ Is (Are) there any item(s) in the questionnaire or this interview about which you would like to elaborate or clarify your responses or positions?

[Introduction to Discussing Teaching Online Interview

The purpose of the research study is to identify with whom, why, and how faculty who teach World Wide Web (W) or mixed-mode, reduced seat time (M) courses discuss new online teaching ideas, and whether these discussions influence their perceptions and decisions about teaching and learning. According to Rogers' (2003) diffusion of innovations theory, individuals' perceptions and decisions can be influenced by others based on several social interaction factors (e.g., relationships, proximity, modeling, etc.).

In the quantitative analysis of my mixed methods study, I converted the data to numerical values, removing all personalization. Next, I illustrated each participant's personal network (see attached). These personal network models depict the individuals with whom a participant discusses teaching online. Typically, personal networks are described in terms of the types of individuals communicating (similarities and differences), why they share information, the communication methods they use, the frequency of their communications, and what social and environmental factors contribute to or inhibit these communications.

Then, I compared the personal networks to identify any social networks (see attached). For the purpose of this study, social networks describe a group of participants who identified the same individual with whom they each independently discuss teaching online. In the attached social networks, the pink cloud represents the one individual six participants identified as someone with whom he/she discusses teaching online. Within that social network, other social networks appeared: yellow represents the one individual

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[3] Strikethrough text represents wording included in the content validity interview instrument but revised for the pilot test. Underlined text represents wording included in the pilot test interview instrument but revised for the study. Wording appearing in also represents text added to the study interview instrument.

four participants identified, green represents the one individual three participants identified, and blue represents the one individual two participants identified.

The purpose of this phenomenological interview is to describe your discussion and learning experiences within these personal and social networks. Through a phenomenological data collection and analysis approach, I will be able to describe you and your perspective of the discussions you have about teaching online, and how those personal/social networks and discussions influence your perceptions and decisions about teaching and learning.

Several of the interview questions may appear similar to the online survey. However, the purpose of these questions is to develop a more in-depth understanding of your personal and social networks. The sub-questions of the primary questions are intended as prompts and may not be all inclusive of what you would like to say. Please feel free to elaborate. Only by understanding your perceptions and experiences can I effectively describe the personal and social network models attached.

If you have any questions, please let me know.
Thank you,
Dorothy]

Discussing Teaching Online Interview Questions

Please elaborate about your discussions regarding teaching online.

1. Tell me a little about yourself.
    a. How would you describe your teaching experience (e.g., years, k-12, higher ed, etc.)?
    b. How would you describe your teaching preferences (e.g., face-to-face, mixed-mode, fully online, Socratic, constructivist, collaborative, etc.)?
    c. How would you describe your feelings about change (in general)?
    d. Do you or others consider yourself a trail blazer (e.g., someone interested in testing new ideas before others)? If so, why?
    e. Describe how (e.g., research, thought process, etc.) you decide to adopt or reject something new you learn about.
    f. How would you describe your technology skills?
    g. Why did you decide to teach World Wide Web (W) or mixed-mode, reduced seat time (M) courses?
    h. How would you describe how teaching online does or does not match your face-to-face teaching practices?

      i.   Describe your relationship with the faculty with whom you discuss teaching online.

      j.   Do you teach in the same college? Same department? Same program?

      k.   Do you share similar educational backgrounds?

      l.   Do you share similar teaching philosophies and/or experiences?

      m. Are your offices close to one another?

      n.   Is your relationship professional, personal, or both?

      o.   If your relationships include both professional and personal, do you prefer discussing teaching online with one or the other? If so, why?

      p.   Do you believe one influences your perceptions and decisions about teaching and learning more than the other? If so, why?

      q.   Do you consider yourself primarily the sender or receiver about teaching online ideas? Why?

2. Describe why and how a discussion about teaching online with other faculty member(s) typically occurs.

      a.   Do you seek discussions about teaching online to address a need or problem?

      b.   Does anything ever prevent you from discussing teaching online? If so, what?

      c.   How (e.g., face-to-face, e-mail, telephone, etc.) do you typically discuss teaching online? How would you prefer to discuss teaching online?

      d.   What do you typically consider work hours?

      e.   Do you typically discuss teaching online more during or after work hours?

      f.   How frequently (e.g., quantify how often-daily, 3-4 times per week, etc.) do you typically discuss teaching online with these individuals?

      g.   Has your experience teaching online affected the frequency of your discussions? If so, how?

3. Describe how discussions about teaching online have influenced your perceptions and decisions about teaching and learning.

      a.   When you learn about new teaching online ideas, do you prefer to read or hear about them, or see them demonstrated?

      b.   What influences you most when you are deciding about new teaching online ideas?

      c.   What motivates or inhibits you from trying new teaching online ideas?

      d.   Give a few examples of teaching online ideas resulting from a discussion with one of the individuals you mentioned which influenced your perceptions or decisions about teaching and learning.

4. Is there anything else you would like to tell me to help me understand your experience discussing teaching online?

5. Is (Are) there any item(s) in the questionnaire or this interview about which you would like to elaborate or clarify your responses or positions?

APPENDIX G:

E-MAILS INVITING PARTICIPATION

Dear Faculty Member,

A few days from now you will receive an e-mail requesting your help in a research study about faculty communication being conducted for my Curriculum and Instruction dissertation at the University of Central Florida. Rogers' (2003) diffusion of innovations theory provided the foundation for the research study. I am writing in advance because research found many people like to know ahead of time when they will be contacted to participate in a survey.

The pilot research study explores with whom and how faculty who teach World Wide Web (W) or mixed-mode, reduced seat time (M) courses discuss new teaching online ideas. The term *discuss* is defined as communication about any aspect of teaching online between two or more people (whether mentoring, face-to-face, telephone, e-mail, letter, memo, etc.). The term *teaching online* is defined as all activities and tasks required to teach a mixed-mode, reduced seat time (M), World Wide Web (W), or Web-enhanced (E) course, including but not limited to developing course content, managing and facilitating course activities, and using technology tools (such as word processing, course management systems, e-mail, chat, etc.).

This important pilot study will help me describe how M and W faculty discuss teaching online. With this insight, I may be able to identify communication methods to enhance discussions about teaching online. I would greatly appreciate it if you could take a few moments to complete my questionnaire. By doing so you will help ensure I have the best information possible.

[Based on findings from diffusion of innovations research, understanding who and how information is communicated enables the researcher to describe how new ideas are discovered and dispersed among members of a group. In the case of support for faculty teaching online, understanding how members of a group learn about and communicate new ideas can lead to improved administrative support strategies and identification of learning communities. However, very little research exists about the communication channels and processes online faculty employ to seek assistance with teaching online. You can contribute to enhancing available literature by participating in my research study.]

[A comment on my survey procedures: Because this is a study of your personal network communication experiences discussing teaching online, I request in the questionnaire your name and ask you to identify at least one UCF faculty member with whom you discuss teaching online. If you provide your name and/or the name(s) of others, you and they will be represented numerically in a personal network, and potentially social network, model, illustrating communication patterns among M and W faculty like you.

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[4] Underlined text represents wording included in pilot test e-mails but revised for the study. Wording appearing in brackets represents text added to study e-mails.

Here is an example of each from my UCF faculty pilot study (http://pegasus.cc.ucf.edu/~dpick/networkmodel.pdf) (http://pegasus.cc.ucf.edu/~dpick/socialnetworkmodel.pdf). No legend identifying you or others based on the numerical representation will be provided. However, to participate in the study you are not required to provide your name or the name(s) of anyone with whom you discuss teaching online.]

[Also, if you provide your name, to protect your anonymity and the confidentiality of your responses, it will be manually converted to a number once you submit the survey. The list of your and other participants' names is then destroyed so individual names can never be connected to the results in any way. Protecting the confidentiality of faculty responses, such as yours, is very important to me, as well as the University.]

[A list of names for other UCF M and W faculty with whom you may have discussed teaching online will be provided only for your convenience. Any name(s) of faculty you identify as someone with whom you discuss teaching online will be automatically converted to a number when the form is submitted, ensuring their anonymity. Only I will have access to the data, which I will personally analyze, removing any identifiers during analysis. Once analysis is complete, the data will be erased.]

[Providing your valuable communication experiences for the study will help me accurately describe the personal networks M and W faculty, such as yourself, employ to discover and discuss new online teaching ideas. I would greatly appreciate your taking a few moments to complete my questionnaire. By doing so you will help insure the study will have the best information possible. Although only 10% (12) of the faculty invited to participate in my pilot study responded, I immediately discovered two social networks, illustrating the diffusion of new online teaching ideas and potential learning communities. Imagine the number of potential learning communities which can be identified from a larger sample if you choose to participate!]

[My research study is a mixed methods, so a small sampling of questionnaire participants will be asked to participate in an interview lasting approximately 45 minutes. If you are identified and agree to participate in the secondary interview process, you will receive a copy of the interview questions shortly after the interview is scheduled. Your interview will be conducted in person at your office, by telephone, or e-mail, whichever method is most convenient for you. For faculty being interviewed at their offices, with your permission, I would like to audiotape to ensure the accuracy of your responses. Only I will have access to the tape, which I will personally transcribe, removing any identifiers during transcription. The tape will then be erased.]

[A note about myself: In addition to being a doctoral student, I am an Instructional Designer in Course Development and Web Services. This study is designed to meet the requirements of my Doctor of Education (Ed.D.) dissertation and not related to my employment at CDWS. My desire to provide outstanding customer support to faculty delivering online courses is why I began the doctoral program at UCF, as well as why I

chose this dissertation topic. I believe understanding how faculty communicate and learn about new online teaching ideas is essential to defining and executing a successful customer service strategy. Whether or not you decide to participate in this study will not influence me or other Course Development and Web Services staff. I remain committed to providing you outstanding customer service. If you have any questions about this study, please contact me at dpick@mail.ucf.edu or call (407) 823-4116. I would be happy to speak with you.]

If you would like to read more about the research project or me, please visit my Website at http://pegasus.cc.ucf.edu/~dpick/home.htm. If you have any questions or comments about this study, I would be happy to speak with you. My telephone number is 407-823-4116, or you can write to me at dpick@mail.ucf.edu.

Thank you for your time and consideration. Only with the generous help of faculty like you can my pilot research be successful!

Regards,
Dorothy Pick
Doctoral Student
Curriculum and Instruction Program

Dear Faculty Member,

Here is the link to the brief online questionnaire I mentioned to you by e-mail a few days ago. Again, the purpose of the research study is to identify with whom and how faculty who teach World Wide Web (W) or mixed-mode, reduced seat time (M) courses discuss new online teaching ideas. The term *discuss* is defined as communication about any aspect of teaching online between two or more people (whether mentoring, face-to-face, telephone, e-mail, letter, memo, etc.). The term *teaching online* is defined as all activities and tasks required to teach a mixed-mode, reduced seat time (M), World Wide Web (W), or Web-enhanced (E) course, including but not limited to developing course content, managing and facilitating course activities, and using technology tools (such as word processing, course management systems, e-mail, chat, etc.).

I am contacting faculty who teach W or M courses to ask if they discuss teaching online with their colleagues. I am asking you to participate in this study because you were identified as a highly successful online educator. Your thoughts and experiences will be of great help to me.

If you would like to participate in this pilot study, please read and agree to the online Informed Consent (http://pegasus.cc.ucf.edu/~dpick/consent.htm) and complete the online questionnaire (http://teach.ucf.edu/survey/). The "User name" is "*faculty*" and the "Password" is "*enter*" (both all lower case).

[Rogers (2003) diffusion of innovations theory provided the theoretical foundation for the pilot research study. Based on findings from diffusion of innovations research, understanding who and how information is communicated enables the researcher to describe how new ideas are discovered and dispersed among members of a group. In the case of support for faculty teaching online, understanding how members of a group learn about and communicate new ideas can lead to improved administrative support strategies and identification of learning communities.]

[However, very little research exists about the communication channels and processes online faculty employ to seek assistance with teaching online. You can contribute to enhancing available literature by participating in my research study. I am contacting faculty such as yourself, who teach W or M courses, to ask if you discuss teaching online with your colleagues. I am asking you to participate in this study because you were identified as a highly successful online educator. Your thoughts and experiences are of great value to me.]

The online questionnaire (questions appear at the end of this e-mail) is anticipated to require approximately 30 to 45 minutes of your time, depending upon your personal experiences. Results from the online questionnaire will be used to create a personal network model (similar to the one at http://pegasus.cc.ucf.edu/~dpick/networkmodel.pdf),

illustrating communication patterns among M and W faculty like you. [Because this is a study of your personal communication experiences discussing teaching online, I ask you to identify yourself and at least one other UCF faculty member with whom you discuss teaching online. However, to participate in the study you are not required to provide your name or the name(s) of anyone with whom you discuss teaching online.]

[If you provide your name, to protect your anonymity and the confidentiality of your responses, it will be manually converted to a number. The list of your and other participants' names is then destroyed so individual names can never be connected to the results in any way. Protecting the confidentiality of faculty responses, such as yours, is very important to me, as well as the University.]

[A list of names for other UCF M and W faculty with whom you may have discussed teaching online is provided only for convenience. Any name(s) of faculty you identify as someone with whom you discuss teaching online will be automatically converted to numbers when the form is submitted, ensuring their anonymity. Only I will have access to the data, which I will personally analyze, removing any identifiers during analysis. Once analysis is complete, the data will be erased.]

[If you provide your name and/or the name(s) of others, you and they will be represented numerically in a personal network, and potentially a social network, model, illustrating communication patterns among M and W faculty like you. Here is an example of each from my UCF faculty pilot study (http://pegasus.cc.ucf.edu/~dpick/networkmodel.pdf) (http://pegasus.cc.ucf.edu/~dpick/socialnetworkmodel.pdf). No legend identifying you or others based on the numerical representation will be provided.]

[Providing your valuable communication experiences for the study will help me accurately describe the personal networks M and W faculty, such as yourself, employ to discover and discuss new online teaching ideas. I would greatly appreciate your taking a few moments to complete my questionnaire. By doing so you will help insure the study will have the best information possible. Although only 10% (12) of the faculty invited to participate in my pilot study responded, I immediately discovered two social networks, illustrating the diffusion of new online teaching ideas and potential learning communities. Imagine the number of potential learning communities which can be identified from a larger sample if you choose to participate!]

[My research study is a mixed methods, so] a small sampling of questionnaire participants will be asked to participate in an interview lasting approximately 30 [45] minutes. If you are identified and agree to participate in the secondary interview process, you will receive a copy of the interview questions shortly after the interview is scheduled. Your interview will be conducted in person at your office, by telephone, or e-mail, whichever method is most convenient for you. For faculty being interviewed at their offices, with your permission, I would like to audiotape to ensure the accuracy of your responses. Only I will have access to the tape, which I will personally transcribe, removing any identifiers during transcription. The tape will then be erased.

You will not have to answer any question you do not wish to answer. If chosen for the smaller interview sample, you are not required to participate. You are free to withdraw your consent to participate and may discontinue your participation in the online questionnaire or interview at any time without consequence. Your identity will be kept confidential and will not be revealed in the final manuscript. There are no anticipated risks, compensation, or other direct benefits to you as a participant in this survey and interview.

[You need not respond to any question you do not wish to answer in either the online questionnaire or the interview. Your answers [responses for both the online questionnaire and interview] are completely confidential and will be released only as summaries in which no individual's answers can be identified. When you submit your completed questionnaire, your name will be replaced with a numerical value and never connected to your answers in any way. [If chosen for the smaller interview sample, you are not required to participate. You are free to withdraw your consent to participate and may discontinue your participation in the online questionnaire or interview at any time without consequence. Your identity will be kept confidential and will not be revealed in the final manuscript. There are no anticipated risks, compensation, or other direct benefits to you as a participant in this survey and interview.]

This pilot study is voluntary. However, you can help me very much by taking a few moments to share your perceptions and experiences regarding discussions with colleagues about teaching online. To participate in this pilot study, please read and agree to the online Informed Consent (http://pegasus.cc.ucf.edu/~dpick/consent.htm) and complete the online questionnaire (http://teach.ucf.edu/survey/). The "User name" is "*faculty*" and the "Password" is "*enter*" (both all lower case).

[I also want to assure you your participation in this study is voluntary. However, you can help me very much by taking a few moments to share your perceptions and experiences regarding discussions with colleagues about teaching online. If you would like to join in this research study, please read and agree to the online Informed Consent at (http://pegasus.cc.ucf.edu/~dpick/consent.htm) and complete the online questionnaire (http://teach.ucf.edu/survey/). The "User name" is "*faculty*" and the "Password" is "*enter*" (both all lower case). The survey will be accessible through October 31, 2005.]

[I hope you will fill out and submit the online questionnaire (http://teach.ucf.edu/survey/) soon. If you no longer teach at the University of Central Florida, and you feel I have erred by including you in this study, please let me know by replying to this e-mail with a "No Thank You." Also, if for any reason you prefer not to participate, please let me know by replying to this e-mail with "No Thank You." Such responses are very helpful and allow me to delete your name from the e-mail list.]

[A note about myself: In addition to being a doctoral student, I am an Instructional Designer in Course Development and Web Services. This study is designed to meet the

requirements of my Doctor of Education (Ed.D.) dissertation and not related to my employment at CDWS. My desire to provide outstanding customer support to faculty delivering online courses is why I began the doctoral program at UCF, as well as why I chose this dissertation topic. I believe understanding how faculty communicate and learn about new online teaching ideas is essential to defining and executing a successful customer service strategy. Whether or not you decide to participate in this study will not influence me or other Course Development and Web Services staff. I remain committed to providing you outstanding customer service. If you have any questions about this study, please contact me at dpick@mail.ucf.edu or call (407) 823-4116. I would be happy to speak with you.]

If you would like to read more about the research project, Rogers' (2003) diffusion of innovations theory, or me, please visit my Website at http://pegasus.cc.ucf.edu/~dpick/home.htm. If you have any questions or comments about this study, I would be happy to speak with you. My telephone number is 407-823-4116, or you can write to me at dpick@mail.ucf.edu.

Questions or concerns about research participants' rights may be directed to the UCFIRB office, University of Central Florida Office of Research, Orlando Tech Center, 12443 Research Parkway, Suite 207, Orlando, FL 32826. The phone number is (407) 823-2901.

Thank you very much for helping with this important study!
Regards,
Dorothy Pick
Doctoral Student
Curriculum and Instruction Program

[http://teach.ucf.edu/survey/
"User name" = "*faculty*"
"Password" = "*enter*"
http://pegasus.cc.ucf.edu/~dpick/consent.htm]

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Questionnaire Questions:
1. How many years have you been teaching *in higher education*?
2. How many years have you been teaching at *UCF*?
3. In what year did you *first* teach an online course?
4. Have you ever *co-taught* an online course?
5. For which University of Central Florida (UCF) *college* do you teach?
6. For which *department and program* do you teach?
7. On *average*, how many hours per day do you currently spend using a computer for any purpose?
8. Please type your first and last name.
9. If you wish to discuss teaching online with *another UCF* faculty member, on whom are you most likely to call?

10. Of those UCF faculty members with whom you discuss teaching online, what *communication methods* do you use most often?
11. *Where* are you when you discuss teaching online with those UCF faculty members?
12. *When* do you discuss teaching online with those UCF faculty members?
13. Of those UCF faculty members with whom you discuss teaching online, *how often* do you have these discussions?
14. Why *do* you discuss teaching online with other UCF faculty members?
15. Why do you *not* discuss teaching online with other UCF faculty members?
16. Do you believe discussing teaching online with other UCF faculty members has influenced your *perceptions and decisions* about teaching and learning?
17. How do you believe discussing teaching online has influenced your *perceptions and decisions* about teaching and learning?
18. Why do you believe discussing teaching online *has not* influenced your perceptions and decisions about teaching and learning?
19. How many years have you been teaching mixed-mode, reduced seat time (M) courses at UCF?
20. How many undergraduate/graduate students do you teach in a single section of a mixed-mode, reduced seat time (M) course in one semester?
21. How many years have you been teaching fully online (W) courses at UCF?
22. How many undergraduate/graduate students do you teach in a single section of a fully online (W) course in one semester?
23. How many graduate students do you currently supervise?
24. What is your current academic position?
25. What type of appointment do you hold?
26. What is your gender?
27. What is your age in years?

Sample Interview Questions (these questions may change based on quantitative data analysis results):
1. What "lessons learned" or best practices have you used and integrated into your online teaching?
2. What changes to student learning do you observe as a result of integrating "lessons learned" or best practices into your online teaching?
3. How do you determine whether the use and integration of "lessons learned" or best practices is having the intended/desired effects? In other words, how do you "know" the "lessons learned" or best practices you used "worked," and when they did not?
4. Is (Are) there any item(s) in the questionnaire or this interview about which you would like to elaborate or clarify your responses or positions?

[Questionnaire Questions:
1. How many years have you been teaching *in higher education*?
2. How many years have you been teaching at *UCF*?
3. In what year did you *first* teach an online course?
4. Have you ever *co-taught* an online course?
5. For which University of Central Florida (UCF) *college* do you teach?
6. For which *department and program* do you teach?
7. On *average*, how many hours per day do you currently spend using a computer for any purpose?
8. Please type your first and last name.
9. If you wish to discuss teaching online with *another UCF* faculty member, on whom are you most likely to call?
10. Of those UCF faculty members with whom you discuss teaching online, what *communication methods* do you use most often?
11. *Where* are you when you discuss teaching online with those UCF faculty members?
12. *When* do you discuss teaching online with those UCF faculty members?
13. Of those UCF faculty members with whom you discuss teaching online, *how often* do you have these discussions?
14. Why *do* you discuss teaching online with other UCF faculty members?
15. Why do you *not* discuss teaching online with other UCF faculty members?
16. Do you believe discussing teaching online with other UCF faculty members has influenced your *perceptions and decisions* about teaching and learning?
17. How do you believe discussing teaching online has influenced your *perceptions and decisions* about teaching and learning?
18. Why do you believe discussing teaching online *has not* influenced your perceptions and decisions about teaching and learning?
19. How many years have you been teaching mixed-mode, reduced seat time (M) courses at UCF?
20. How many undergraduate/graduate students do you teach in a single section of a mixed-mode, reduced seat time (M) course in one semester?
21. How many years have you been teaching fully online (W) courses at UCF?
22. How many undergraduate/graduate students do you teach in a single section of a fully online (W) course in one semester?
23. How many graduate students do you currently supervise?
24. What is your current academic position?
25. What type of appointment do you hold?
26. What is your gender?
27. What is your age in years?

Sample Interview Questions (these questions may change based on quantitative data analysis results):
1. Describe your relationship with the faculty with whom you discuss teaching online.
2. Describe how a discussion about teaching online with other faculty member(s) typically occurs.
3. Describe why you discuss teaching online.
4. Describe why you do not discuss teaching online.
5. Describe how discussions about teaching online have influenced your perceptions and decisions about teaching and learning.
6. Describe what new online teaching ideas you have learned.
7. Describe what new online teaching ideas you have implemented.
8. Describe how these new ideas improved or detracted from your online teaching.
9. Is there anything else you would like to tell me to help me understand your experience discussing teaching online?
10. Is(Are) there any item(s) in the questionnaire or this interview about which you would like to elaborate or clarify your responses or positions?]

Dear Faculty Member,

A few <u>weeks</u> [days] ago I sent you an e-mail with a link to an online questionnaire seeking your experience discussing teaching online with other UCF faculty. <u>As of today, I have not received a completed online questionnaire from you. I realize this is a busy time of year as the semester is just beginning. However, I am contacting you and others again in the hope of obtaining the insights only UCF faculty like you can provide.</u> [If you have responded, thank you for participating in my study!]

<u>If you just</u> [If you have not responded as of today because you] have not had the time, but would like to participate in <u>this pilot</u> [my research] study, please read and agree to the online Informed Consent (http://pegasus.cc.ucf.edu/~dpick/consent.htm) and complete the online questionnaire (http://teach.ucf.edu/survey/). The "User name" is "*faculty*" and the "Password" is "*enter*" (both all lower case). The survey will be accessible through <u>September 5, 2005</u> [October 31, 2005.]

The comments of faculty who already responded include a wide variety of communication experiences, both good and bad. I am writing again because of the importance of your responses to achieving accurate results. Although I sent invitations to participate in this online questionnaire to all faculty who teach fully online (W) or mixed-mode, reduced seat time (M) courses at UCF, only by hearing from nearly everyone in the sample can I be sure the results are truly representative. [In my pilot study, only 10% (12) of the faculty invited to participate responded. Even from such a small sample, I discovered two social networks (http://pegasus.cc.ucf.edu/~dpick/networkmodel.pdf), illustrating potential learning communities and the diffusion of new online teaching ideas. Imagine the number of potential learning communities which can be identified from a larger sample if you choose to participate!]

A comment on my survey procedures: [Because this is a study of your personal network communication experiences discussing teaching online,] I request [in the questionnaire] your name <u>so I can accurately create a personal network model (http://pegasus.cc.ucf.edu/~dpick/networkmodel.pdf) and check your name as completed the online questionnaire.</u> [and ask you to identify at least one UCF faculty member with whom you discuss teaching online]. If you provide your name and/or the name(s) of others, you and they will be represented numerically in a personal network, and potentially social network, model, illustrating communication patterns among M and W faculty like you. Here is an example of each from my UCF faculty pilot study (http://pegasus.cc.ucf.edu/~dpick/networkmodel.pdf) (http://pegasus.cc.ucf.edu/~dpick/socialnetworkmodel.pdf). No legend identifying you or others based on the numerical representation will be provided. However, to participate in the study you are not required to provide your name or the name(s) of anyone with whom you discuss teaching online.]

[Also, if you provide your name, to protect your anonymity and the confidentiality of your responses, it will be manually converted to a number once you submit the survey.] The list of your and other participants' names is then destroyed so individual names can never be connected to the results in any way. Protecting the confidentiality of faculty responses, such as yours, is very important to me, as well as the University.

[A list of names for other UCF M and W faculty with whom you may have discussed teaching online is provided only for your convenience. Any name(s) of faculty you identify as someone with whom you discuss teaching online will be automatically converted to a number when the form is submitted, ensuring their anonymity. Only I will have access to the data, which I will personally analyze, removing any identifiers during analysis. Once analysis is complete, the data will be erased.]

[Providing your valuable communication experiences for the study will help me accurately describe the personal networks M and W faculty, such as yourself, employ to discover and discuss new online teaching ideas. I would greatly appreciate you taking a few moments to complete my questionnaire. By doing so you will help insure the study will have the best information possible.]

[My research study is a mixed methods, so a small sampling of questionnaire participants will be asked to participate in an interview lasting approximately 45 minutes. If you are identified and agree to participate in the secondary interview process, you will receive a copy of the interview questions shortly after the interview is scheduled. Your interview will be conducted in person at your office, by telephone, or e-mail, whichever method is most convenient for you. For faculty being interviewed at their offices, with your permission, I would like to audiotape to ensure the accuracy of your responses. Only I will have access to the tape, which I will personally transcribe, removing any identifiers during transcription. The tape will then be erased.]

[You need not respond to any question you do not wish to answer in either the online questionnaire or the interview. Your responses for both the online questionnaire and interview are completely confidential and will be released only as summaries in which no individual's answers can be identified. If chosen for the smaller interview sample, you are not required to participate. You are free to withdraw your consent to participate and may discontinue your participation in the online questionnaire or interview at any time without consequence. Your identity will be kept confidential and will not be revealed in the final manuscript. There are no anticipated risks, compensation, or other direct benefits to you as a participant in this survey and interview.]

[I also want to assure you your participation in this study is voluntary. However, you can help me very much by taking a few moments to share your perceptions and experiences regarding discussions with colleagues about teaching online. If you would like to participate in this pilot study, please read and agree to the online Informed Consent (http://pegasus.cc.ucf.edu/~dpick/consent.htm) and complete the online questionnaire (http://teach.ucf.edu/survey/). The "User name" is "*faculty*" and the "Password" is

"*enter*" (both all lower case).] The survey will be accessible through September 5, 2005 [October 31, 2005.]

I hope you will fill out and submit the online questionnaire (http://teach.ucf.edu/survey/) soon. A few faculty have written to say they should not have received the e-mail because they no longer teach for the University of Central Florida. If that is a concern of yours, please respond to this e-mail so I can delete your name from the e-mail list. [If you no longer teach at the University of Central Florida, and you feel I have erred by including you in this study, please let me know by replying to this e-mail with a "No Thank You."] [Also,] if for any reason you prefer not to participate, please let me know by replying to this e-mail with "No Thank You." [Such responses are very helpful and allow me to delete your name from the e-mail list.]

[A note about myself: In addition to being a doctoral student, I am an Instructional Designer in Course Development and Web Services. This study is designed to meet the requirements of my Doctor of Education (Ed.D.) dissertation and not related to my employment at CDWS. My desire to provide outstanding customer support to faculty delivering online courses is why I began the doctoral program at UCF, as well as why I chose this dissertation topic. I believe understanding how faculty communicate and learn about new online teaching ideas is essential to defining and executing a successful customer service strategy. Whether or not you decide to participate in this study will not influence me or other Course Development and Web Services staff. I remain committed to providing you outstanding customer service. If you have any questions about this study, please contact me at dpick@mail.ucf.edu or call (407) 823-4116. I would be happy to speak with you.]

If you would like to read more about the pilot research project, Rogers' (2003) diffusion of innovations theory, or me, please visit my Website at http://pegasus.cc.ucf.edu/~dpick/home.htm. Also, if you have any questions or comments about this study, feel free to contact me. The telephone number where I can be reached at the University is 407-823-4116.

Thank you very much for helping with this important study!

Dorothy Pick
Doctoral Student
Curriculum and Instruction Program

[http://teach.ucf.edu/survey/
"User name" = "*faculty*"
"Password" = "*enter*"
http://pegasus.cc.ucf.edu/~dpick/consent.htm]

Dear Faculty Member,

During the last few weeks, I sent you several e-mails about an important research study I am conducting for my dissertation at the University of Central Florida. Its purpose is to help <u>me</u> [identify and] understand M and W faculty discussions about teaching online, and how these interactions might be relevant to influencing faculty perceptions and decisions about teaching and learning online.

The <u>pilot study</u> [online questionnaire for my research study] will close <u>September 5, 2005</u> [October 31, 2005]. This is my last <u>contact with</u> [opportunity for input from] faculty <u>I believe</u> [who] can offer insight into their communication experiences. I am sending this final contact because faculty who have not responded may have had different experiences than those who have responded. Hearing from everyone in this small sample <u>helps</u> [is important to] assure the survey results are as accurate as possible.

If you have not had the time but would like to participate in this <u>pilot</u> [research] study, please read and agree to the online Informed Consent (http://pegasus.cc.ucf.edu/~dpick/consent.htm) and complete the online questionnaire (http://teach.ucf.edu/survey/). The "User name" is "*faculty*" and the "Password" is "*enter*" (both all lower case).

[A comment on my survey procedures: Because this is a study of your personal network communication experiences discussing teaching online, I request in the questionnaire your name and ask you to identify at least one UCF faculty member with whom you discuss teaching online. If you provide your name and/or the name(s) of others, you and they will be represented numerically in a personal network, and potentially social network, model, illustrating communication patterns among M and W faculty like you. Here is an example of each from my UCF faculty pilot study (http://pegasus.cc.ucf.edu/~dpick/networkmodel.pdf) (http://pegasus.cc.ucf.edu/~dpick/socialnetworkmodel.pdf). No legend identifying you or others based on the numerical representation will be provided. However, to participate in the study you are not required to provide your name or the name(s) of anyone with whom you discuss teaching online.]

[Also, if you provide your name, to protect your anonymity and the confidentiality of your responses, it will be manually converted to a number once you submit the survey. The list of your and other participants' names is then destroyed so individual names can never be connected to the results in any way. Protecting the confidentiality of faculty responses, such as yours, is very important to me, as well as the University.]

[A list of names for other UCF M and W faculty with whom you may have discussed teaching online is provided only for your convenience. Any name(s) of faculty you identify as someone with whom you discuss teaching online will be automatically

converted to a number when the form is submitted, ensuring their anonymity. Only I will have access to the data, which I will personally analyze, removing any identifiers during analysis. Once analysis is complete, the data will be erased.]

[Providing your valuable communication experiences for the study will help me accurately describe the personal networks M and W faculty, such as yourself, employ to discover and discuss new online teaching ideas. I would greatly appreciate your taking a few moments to complete my questionnaire. By doing so you will help insure the study will have the best information possible. Although only 10% (12) of the faculty invited to participate in my pilot study responded, I immediately discovered two social networks, illustrating the diffusion of new online teaching ideas and potential learning communities. Imagine the number of potential learning communities which can be identified from a larger sample if you choose to participate!]

[My research study is a mixed methods, so a small sampling of questionnaire participants will be asked to participate in an interview lasting approximately 45 minutes. If you are identified and agree to participate in the secondary interview process, you will receive a copy of the interview questions shortly after the interview is scheduled. Your interview will be conducted in person at your office, by telephone, or e-mail, whichever method is most convenient for you. For faculty being interviewed at their offices, with your permission, I would like to audiotape to ensure the accuracy of your responses. Only I will have access to the tape, which I will personally transcribe, removing any identifiers during transcription. The tape will then be erased.]

[You need not respond to any question you do not wish to answer in either the online questionnaire or the interview. Your responses for both the online questionnaire and interview are completely confidential and will be released only as summaries in which no individual's answers can be identified. If chosen for the smaller interview sample, you are not required to participate. You are free to withdraw your consent to participate and may discontinue your participation in the online questionnaire or interview at any time without consequence. Your identity will be kept confidential and will not be revealed in the final manuscript. There are no anticipated risks, compensation, or other direct benefits to you as a participant in this survey and interview.]

I also want to assure you your <u>response</u> [participation in] this <u>pilot</u> study is voluntary <u>and confidential. If you prefer not to respond, that's fine</u>. [However, I hope you will fill out and submit the online questionnaire soon. Your perceptions and experiences regarding discussions with colleagues about teaching online are critical to illustrate accurately UCF faculty experiences. If you would like to participate in this research study, please read and agree to the online Informed Consent (http://pegasus.cc.ucf.edu/~dpick/consent.htm) and complete the online questionnaire (http://teach.ucf.edu/survey/). The "User name" is "*faculty*" and the "Password" is "*enter*" (both all lower case). The survey will be accessible through October 31, 2005.]

If you no longer teach at the University of Central Florida, and you feel I have erred by including you in this study, please let me know by replying to this e-mail with a "No Thank You." [Also, if for any reason you prefer not to participate, please let me know by replying to this e-mail with "No Thank You." Such responses are very helpful and allow me to delete your name from the e-mail list.]

[A note about myself: In addition to being a doctoral student, I am an Instructional Designer in Course Development and Web Services. This study is designed to meet the requirements of my Doctor of Education (Ed.D.) dissertation and not related to my employment at CDWS. My desire to provide outstanding customer support to faculty delivering online courses is why I began the doctoral program at UCF, as well as why I chose this dissertation topic. I believe understanding how faculty communicate and learn about new teaching online ideas is essential to defining and executing a successful customer service strategy. Whether or not you decide to participate in this study will not influence me or other Course Development and Web Services staff. I remain committed to providing you outstanding customer service. If you have any questions about this study, please contact me at dpick@mail.ucf.edu or call (407) 823-4116. I would be happy to speak with you.]

If you would like to read more about the pilot research project, Rogers' (2003) diffusion of innovations theory, or me, please visit my Website at http://pegasus.cc.ucf.edu/~dpick/home.htm. Also, If you have any questions or comments about this study, feel free to contact me. The telephone number where I can be reached at the University is 407-823-4116.

Finally, I appreciate your willingness to consider my request as I conclude this effort to better understand M and W faculty discussions about teaching online. Thank you very much.

Regards,
Dorothy Pick
Doctoral Student
Curriculum and Instruction Program

[http://teach.ucf.edu/survey/
"User name" = "*faculty*"
"Password" = "*enter*"
http://pegasus.cc.ucf.edu/~dpick/consent.htm]

Addition to Second Sending of Final Notification e-mail for Study

Dear Faculty Member,

Thank you to the 15% of you who responded to my online questionnaire seeking your experience discussing teaching online with other UCF faculty!

For those who have not responded, I would appreciate your participation in my dissertation study. To participate, please read and agree to the online Informed Consent (http://pegasus.cc.ucf.edu/~dpick/consent.htm) and complete the online questionnaire (http://teach.ucf.edu/survey/). The "User name" is "faculty" and the "Password" is "enter" (both all lower case). If the link does not automatically appear, please copy and paste it into your Web browser.

Thank you,
Dorothy Pick

For more information about my dissertation and study, please read the following (see Final Notification e-mail above for original e-mail text included.)
****

Good afternoon evening, Dr. (purposeful sample).

My name is Dorothy Pick. You were very kind to respond to the pilot test of my online dissertation questionnaire regarding faculty discussions about teaching online. My dissertation is a mixed methods, including both the online questionnaire and a short interview with a few of the faculty who responded.

[Thank you again for participating in my online survey about faculty discussing teaching online. As mentioned, my research study is a mixed methods approach and a small sampling of survey participants is being requested to participate in a phenomenological interview lasting approximately 30 minutes. The interview questions following this e-mail are intended to elicit the information necessary to describe the personal network models resulting from the quantitative data analysis.]

Through a random sampling process, a small sampling of questionnaire participants is being asked to participate in a short interview lasting no longer than 30 minutes. Through this random sampling process, I identified you to contact regarding participating in this interview research process. Are you willing to participate in the interview portion of this study? Whether you are willing to participate or not in the interview portion of my dissertation research project, please respond to this e-mail or call me at 407-823-4116, so I can invite another respondent. If you are willing to be interviewed, please also provide a few dates and times which would be convenient for you.

This study is voluntary. However, you can help me very much by taking a few moments to be interviewed and further share your perceptions and experiences regarding discussions with colleagues about teaching online.

The draft interview questions appear at the end of this e-mail. You are not required to participate. You are free to withdraw your consent to participate and may discontinue your participation in the interview at any time without consequence.

If you agree to be interviewed, your interview will be conducted in person at your office, by telephone, or e-mail, whichever method is most convenient for you. If we meet in your office, with your permission, I would like to audiotape this interview to insure the accuracy of your responses. Only I will have access to the tape, which I will personally transcribe, removing any identifiers during transcription. The tape will then be erased. Your identity will be kept confidential and will not be revealed in the final manuscript.

Your interview responses will be completely confidential and released only as summaries in which no individual's answers can be identified. There are no anticipated risks, compensation, or other direct benefits to you as a participant in this survey and interview.

This study is designed to meet the requirements of my Doctor of Education (Ed.D.) dissertation and not related to my employment as an Instructional Designer in Course Development and Web Services. My desire to provide outstanding customer support to faculty delivering online courses is why I began the doctoral program at UCF, as well as why I chose this dissertation topic. I believe understanding how faculty communicate and learn about new teaching online ideas is essential to defining a successful customer service strategy. Whether you decide to participate or not in this study, will not influence me or other Course Development and Web Services staff. I remain committed to providing you outstanding customer service. If you have any questions about this study, please contact me at dpick@mail.ucf.edu or call (407) 823-4116. I would be happy to speak with you.

If you would like to read more about the research project, Rogers' (2003) diffusion of innovations theory, or me, please visit my Website at http://pegasus.cc.ucf.edu/~dpick/home.htm. If you have any questions or comments about this study, I would be happy to speak with you. My telephone number is 407-823-4116, or you can write to me at dpick@mail.ucf.edu.

Questions or concerns about research participants' rights may be directed to the UCFIRB office, University of Central Florida Office of Research, Orlando Tech Center, 12443 Research Parkway, Suite 207, Orlando, FL 32826. The phone number is (407) 823-2901.

Thank you very much for helping with this important study!

[You were selected to participate in the interviews based on your survey responses. If you agree to participate in the interview, your interview will be conducted in person at your office, by telephone, or e-mail, whichever is most convenient for you. Please respond to this e-mail regarding your interview preferences if you are willing to be interviewed.]

[I would greatly appreciate your assistance and hope the results of my study can contribute to the betterment of online education.]

Regards,
Dorothy Pick
Doctoral Student
Curriculum and Instruction Program

****
Sample Interview Questions (these questions may change based on quantitative data analysis results):
1. What "lessons learned" or best practices have you used and integrated into your online teaching?
2. What changes to student learning do you observe as a result of integrating "lessons learned" or best practices into your online teaching?

3. How do you determine whether the use and integration of "lessons learned" or best practices is having the intended/desired effects? In other words, how do you "know" the "lessons learned" or best practices you used "worked," and when they did not?
4. Is (Are) there any item(s) in the questionnaire or this interview about which you would like to elaborate or clarify your responses or positions?

****

[Interview Questions:

The purpose of the research study is to identify with whom and how faculty who teach World Wide Web (W) or mixed-mode, reduced seat time (M) courses discuss new online teaching ideas. Please elaborate about your discussions regarding teaching online.

1. Describe your relationship with the faculty with whom you discuss teaching online.
   a. Do you teach in the same college? Same department? Same program?
   b. Do you share similar educational backgrounds?
   c. Do you share similar teaching philosophies and/or experiences?
   d. Is your relationship professional, personal, or both?
2. Describe how a discussion about teaching online with other faculty member(s) typically occurs.
   a. How do you typically discuss teaching online?
   b. Where are you typically located?
   c. Do you typically discuss teaching online in or out of meetings?
   d. When is discussing teaching online typically most convenient for you?
   e. Do you typically discuss teaching online more during or after work hours?
   f. What do you typically consider work hours?
   g. How frequently do you typically discuss teaching online?
3. Describe why you discuss teaching online.
4. Describe why you do not discuss teaching online.
5. Describe how discussions about teaching online have influenced your perceptions and decisions about teaching and learning.
6. Describe what new online teaching ideas you have learned.
7. Describe what new online teaching ideas you have implemented.
8. Describe how these new ideas improved or detracted from your online teaching.
9. Is there anything else you would like to tell me to help me understand your experience discussing teaching online?
10. Is (Are) there any item(s) in the questionnaire or this interview about which you would like to elaborate or clarify your responses or positions?]

Reminder Interview Request e-mail

[Good morning, Dr. (purposeful sample).

The quantitative analysis of my online survey about faculty discussing teaching online discovered 17 faculty members representing a majority of the 62 social networks. You are one of the 17 faculty members. I am writing again because of the importance of your responses to achieving accurate results.

Would you please consider participating in a phenomenological interview lasting approximately 30 minutes? If you agree to participate in the interview (see interview questions below), your interview will be conducted in person at your office, by telephone, or e-mail, whichever is most convenient for you. If you are willing to be interviewed, please respond to this e-mail regarding your availability and interview preferences.

I would greatly appreciate your assistance and hope the results of my study can contribute to the betterment of online education.

Regards,
Dorothy Pick
Doctoral Student
Curriculum and Instruction Program

****
Please elaborate about your discussions regarding teaching online.

1. Tell me a little about yourself.
    a. How would you describe your teaching experience (e.g., years, k-12, higher ed, etc.)?
    b. How would you describe your teaching preferences (e.g., face-to-face, mixed-mode, fully online, Socratic, constructivist, collaborative, etc.)?
    c. How would you describe your feelings about change (in general)?
    d. Do you or others consider yourself a trail blazer (e.g., someone interested in testing new ideas before others)? If so, why?
    e. Describe how (e.g., research, thought process, etc.) you decide to adopt or reject something new you learn about.
    f. How would you describe your technology skills?
    g. Why did you decide to teach World Wide Web (W) or mixed-mode, reduced seat time (M) courses?
    h. How would you describe how teaching online does or does not match your face-to-face teaching practices?

2. Describe your relationship with the faculty with whom you discuss teaching online.
   a. Do you teach in the same college? Same department? Same program?
   b. Do you share similar educational backgrounds?
   c. Do you share similar teaching philosophies and/or experiences?
   d. Are your offices close to one another?
   e. Is your relationship professional, personal, or both?
   f. If your relationships include both professional and personal, do you prefer discussing teaching online with one or the other? If so, why?
   g. Do you believe one influences your perceptions and decisions about teaching and learning more than the other? If so, why?
   h. Do you consider yourself primarily the sender or receiver about teaching online ideas? Why?
3. Describe why and how a discussion about teaching online with other faculty member(s) typically occurs.
   a. Do you seek discussions about teaching online to address a need or problem?
   b. Does anything ever prevent you from discussing teaching online? If so, what?
   c. How (e.g., face-to-face, e-mail, telephone, etc.) do you typically discuss teaching online? How would you prefer to discuss teaching online?
   d. What do you typically consider work hours?
   e. Do you typically discuss teaching online more during or after work hours?
   f. How frequently (e.g., quantify how often-daily, 3-4 times per week, etc.) do you typically discuss teaching online with these individuals?
   g. Has your experience teaching online affected the frequency of your discussions? If so, how?
4. Describe how discussions about teaching online have influenced your perceptions and decisions about teaching and learning.
   a. When you learn about new teaching online ideas, do you prefer to read or hear about them, or see them demonstrated?
   b. What influences you most when you are deciding about new teaching online ideas?
   c. What motivates or inhibits you from trying new teaching online ideas?
   d. Give a few examples of teaching online ideas resulting from a discussion with one of the individuals you mentioned which influenced your perceptions or decisions about teaching and learning.
5. Is there anything else you would like to tell me to help me understand your experience discussing teaching online?
6. Is (Are) there any item(s) in the questionnaire or this interview about which you would like to elaborate or clarify your responses or positions?]

APPENDIX H:

INTERNAL CONSISTENCY RELIABILITY METHOD

Table 23: Descriptive Statistics for Pilot Test Describing 22 Faculty Communication

Experiences

	Mean	Std. Deviation	N
Face to face	.8182	.40452	11
Telephone	.5455	.52223	11
Letters	.1818	.40452	11
Cellphone	.0909	.30151	11
e-mail	.7273	.46710	11
On Campus	.9091	.30151	11
In Our Offices	.5455	.52223	11
In a Conference Room	.0909	.30151	11
From Home	.4545	.52223	11
At Conferences, Workshops, etc.	.1818	.40452	11
During Meetings	.0909	.30151	11
Before Meetings	.1818	.40452	11
After Meetings	.0909	.30151	11
Whenever It Is Convenient for Me	.7273	.46710	11
Weekdays	.5455	.52223	11
Weekends	.1818	.40452	11
Between 8 am to 5 pm	.5455	.52223	11
After 5 pm and before 8 am	.1818	.40452	11
Rarely	.3636	.50452	11
Occasionally	.0909	.30151	11
Often	.1818	.40452	11
Very Often	.2727	.46710	11

Table 24: Total Statistics for Pilot Test Describing 22 Faculty Communication

Experiences

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Face to face	7.1818	13.564	.561	.756
Telephone	7.4545	13.673	.377	.767
Letters	7.8182	14.364	.285	.772
Cellphone	7.9091	15.291	.008	.784
e-mail	7.2727	13.218	.578	.752
On Campus	7.0909	13.891	.631	.757
In Our Offices	7.4545	13.873	.322	.771
In a Conference Room	7.9091	14.491	.356	.769
From Home	7.5455	13.873	.322	.771
At Conferences, Workshops, etc.	7.8182	13.764	.491	.760
During Meetings	7.9091	14.691	.267	.773
Before Meetings	7.8182	13.764	.491	.760
After Meetings	7.9091	14.691	.267	.773
Whenever It Is Convenient for Me	7.2727	14.618	.158	.781
Weekdays	7.4545	12.473	.720	.739
Weekends	7.8182	13.564	.561	.756
Between 8 am to 5 pm	7.4545	13.873	.322	.771
After 5 pm and before 8 am	7.8182	13.564	.561	.756
Rarely	7.6364	16.455	-.320	.813
Occasionally	7.9091	15.891	-.242	.794
Often	7.8182	14.364	.285	.772
Very Often	7.7273	14.018	.333	.769

Table 25: Reliability Statistics for Pilot Test Describing 22 Faculty Communication

Experiences

Cronbach's Alpha	N of Items
.778	22

APPENDIX I:

ONLINE INSTRUMENT RESPONSE RATES

Table 26: Frequency of Online Instrument Response Rates by Academic Position and

Academic Appointment

	Frequency	Percent
Academic Position		
Instructor	21	28.8
Associate Professor	17	23.3
Assistant Professor	15	20.5
Professor	7	9.6
Visiting Instructor	5	6.8
Adjunct Faculty	5	6.8
Visiting Professor	1	1.4
No Position Provided	2	2.7
Total	73	100.0
Academic Appointment		
Not Leading to Tenure	24	32.9
Tenured	23	31.5
Leading to Tenure	14	19.2
Temp/Ltd/Contingent Contract	4	5.5
Other	4	5.5
Sessional Contract	2	2.7
No Appointment Provided	2	2.7
Total	73	100.0

Table 27: Frequency of Online Instrument Response Rates by College

	Frequency	Percent
College of Health and Public Affairs	26	35.6
College of Arts and Sciences	25	34.2
College of Education	17	23.3
College of Business Administration	3	4.1
College of Engineering and Computer Science	1	1.4
Rosen College of Hospitality	1	1.4
Total	73	100.0

Table 28: Frequency of Online Instrument Response Rates by Program

	Frequency	Percent
English	9	12.3
Child, Family, and Community Sciences	7	9.6
Criminal Justice and Legal Studies	7	9.6
Nursing	6	8.2
Health Professions	4	5.5
Social Work	4	5.5
Communicative Disorders	3	4.1
Educational Research, Technology and Leadership	3	4.1
Educational Studies	3	4.1
Philosophy	3	4.1
Sociology	3	4.1
Teaching and Learning Principles	3	4.1
Economics	2	2.7
Physics	2	2.7
Political Science	2	2.7
Public Administration	2	2.7
Psychology	2	2.7
Engineering Technology	1	1.4
Hospitality Operations	1	1.4
Management Information Sciences	1	1.4
Modern Languages and Literatures/TESOL Program	1	1.4
Communication, Speech	1	1.4
Technical Education & Industry Training	1	1.4
Women's Studies	1	1.4
No Program Provided	1	1.4
Total	73	100.0

Table 29: Frequency of Online Instrument Response Rates by Year First Taught Online

	Frequency	Percent
2003	18	24.7
2002	11	15.1
2000	10	13.7
2004	10	13.7
2005	8	11.0
1999	7	9.6
2001	5	6.8
< 1995	3	4.1
1996	1	1.4
Total	73	100.0

Table 30: Frequency of Online Instrument Response Rates by Co-Teaching Online

Course Experience

	Frequency	Percent
No	53	72.6
Yes	19	26.0
No response provided	1	1.4
Total	73	100.0

Table 31: Frequency of Online Instrument Response Rates by Gender and Age

	Frequency	Percent
Gender		
Female	50	68.5
Male	22	30.1
No Gender Provided	1	1.4
Total	73	100.0
Age		
30 - 39 years	23	31.5
50 - 59 years	21	28.8
40 - 49 years	19	26.0
60 - 69 years	8	11.0
No Age Provided	2	2.7
Total	73	100.0

Table 32: Frequency of Online Instrument Response Rates by Size of M Class Taught

	Frequency	Percent
< 20 students	6	8.2
21 - 30 students	17	23.3
31 - 40 students	12	16.4
41 - 50 students	3	4.1
51 - 60 students	5	6.8
61 - 70 students	3	4.1
71 - 80 students	3	4.1
81 - 90 students	1	1.4
91 - 100 students	1	1.4
Other	8	9.6
101.00	2	2.7
110.00	1	1.4
165.00	1	1.4
175.00	1	1.4
200.00	1	1.4
500.00	1	1.4
M Class Size Varies between Under/Grads	1	1.4
Do Not Teach M Courses	6	8.2
No Response	8	11.0
Total	73	100.0

Table 33: Frequency of Online Instrument Response Rates by Size of W Class Taught

	Frequency	Percent
< 20 students	5	6.8
21 - 30 students	14	19.2
31 - 40 students	13	17.8
41 - 50 students	5	6.8
51 - 60 students	3	4.1
61 - 70 students	4	5.5
71 - 80 students	3	4.1
81 - 90 students	2	2.7
91 - 100 students	3	4.1
Other	5	6.8
101.00	1	1.4
125.00	1	1.4
130.00	1	1.4
201.00	1	1.4
W Class Size Varies between Under/Grad	1	1.4
Do Not Teach W Courses	3	4.1
No Response	13	17.8
Total	73	100.0

APPENDIX J:

PERSONAL NETWORK DATA AND MODELS

Table 34: Personal Network Data Based on Study Participants' Responses

Participant	UCF Faculty with Whom They Discuss Teaching Online
p3-c7	c122,c178
p4-c11	c95,c148,c159,c210
p11-c27	c482
p15-c33	c490,c452
p18-c38	c9,c97,c167,c198,c285,c494,c414,c496,c447
p19-c41	c156
p26-c51	c72,c489,c281,c491,c320,c492,c431,c500, c504
p27-c56	c2,c3,c486,c55,c487,c105,c222,c239,c243,c262,c289,c491,c294,c299, c327,c492,c421
p35-c78	c40,c85,c487,c100,c146,c151,c232,c233,c257,c292,c491,c302,c323, c492,c354,c494,c402,c403,c407,c423,c425,c495, c505, c506
p40-c86	c136,c139,c304,c492,c344,c405,c473, c497
p47-c95	c11,c489,c210
p48-c97	c9, c507
p54-c104	c443
p56-c107	c234
p63-c133	c215
p65-c138	c404
p66-c139	c136
p73-c148	c11,c95,c489,c210,c440
p75-c151	c36
p77-c153	c171
p79-c157	c118,c461,c480
p87-c170	c183, c259
p88-c171	c153,c231,c452
p91-c177	c133,c401,c423,c483, c508, c509
p92-c178	c7,c122
p98-c192	c12,c350, c12, c415, c60, c222, c250, c492, c41, c350
p99-c193	c53,c58,c109,c183,c236,c238,c419,c472

Participant	UCF Faculty with Whom They Discuss Teaching Online
p100-c197	c129
p101-c199	c490
p104-c203	c131
p118-c231	c20,c103,c171,c191,c388, c510
p124-c246	c41,c47,c487,c106,c133,c137,c141,c488,c156,c173,c184,c192,c218, c246,c250,c262,c491,c492,c345,c350,c494,c432,c434,c500,c482
p130-c256	c183,c359
p131-c259	c170,c183,c324
p140-c280	c89,c190,c497
p143-c286	c366
p148-c293	c210
p154-c300	c12,c27,c41,c60,c63,c64,c106,c133,c137,c141,c149,c154,c156,c158, c180,c192,c215,c218,c222,c223,c224,c246,c268,c270,c276,c282,c491, c297,c300,c305,c309,c313,c319,c492,c365,c396,c415,c496,c432,c434, c437,c451,c471,c482
p155-c302	c497
p162-c314	c145, c101, c145, c190, c89
p165-c320	c51
p166-c321	c367
p167-c323	c436
p169-c329	c487,c115,c380, c511
p170-c330	c144,c206,c467
p176-c343	c486,c487,c130,c171,c408,c461,c480
p178-c345	c486,c291, c512
p179-c350	c124,c228,c246,c494,c422
p193-c382	c231,c388
p195-c388	c488,c231,c382
p200-c396	c494
p202-c398	c431
p204-c400	c490, c502
p217-c418	c48,c144,c185,c439

| Participant	UCF Faculty with Whom They Discuss Teaching Online
p220-c243	c78,c80,c85,c146,c180,c219,c492,c354,c402,c425
p239-c466	c486,c33,c88,c142,c488,c149,c227,c265,c348,c356,c494,c497,c463, c474
p241-c472	c193, c503
p242-c473	c129,c139,c488,c304,c344,c371,c497
p244-c476	c304, c371, c116, c473, c393
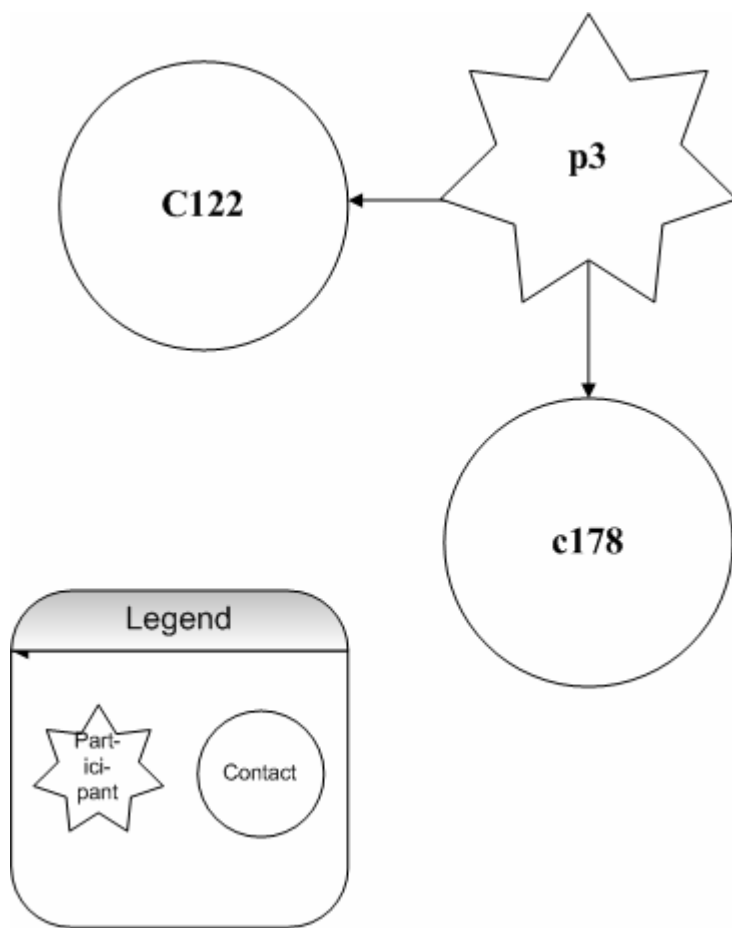
Figure 22: Personal Network Model of p3
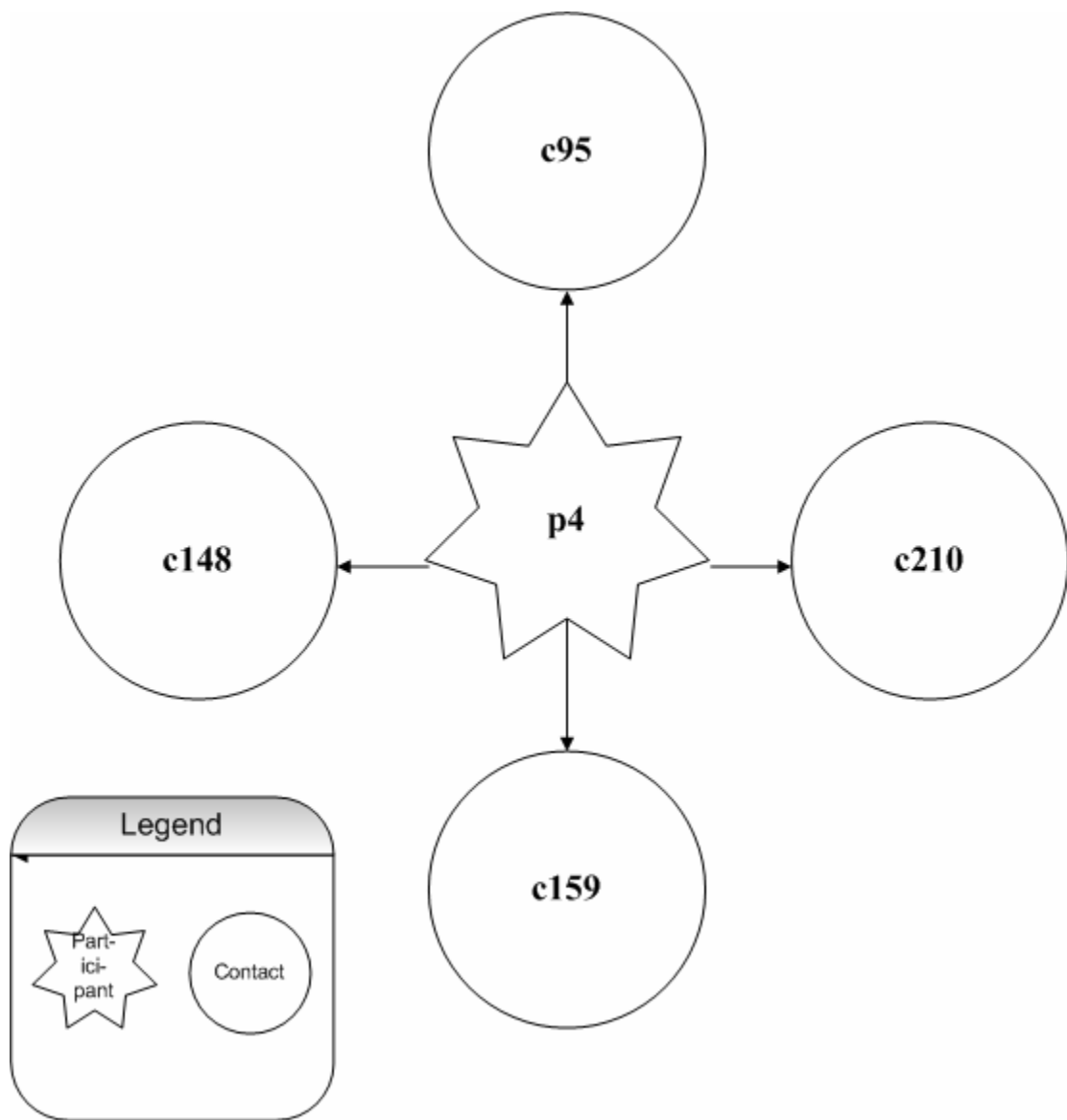
Figure 23: Personal Network Model of p4
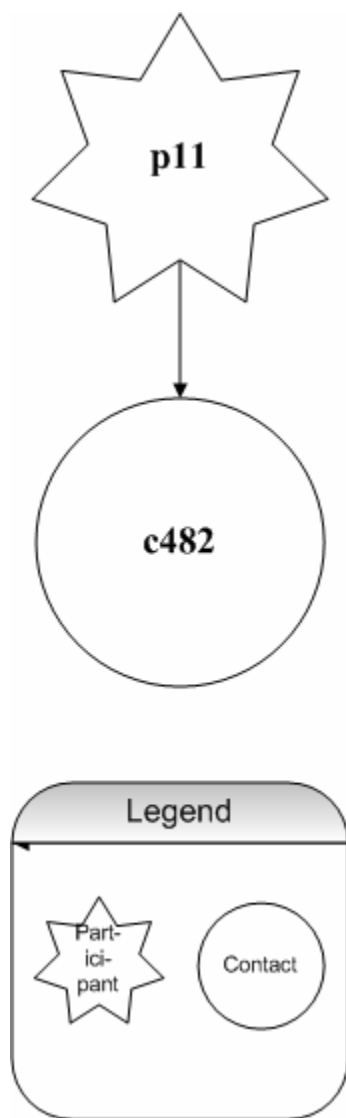
Figure 24: Personal Network Model of p11
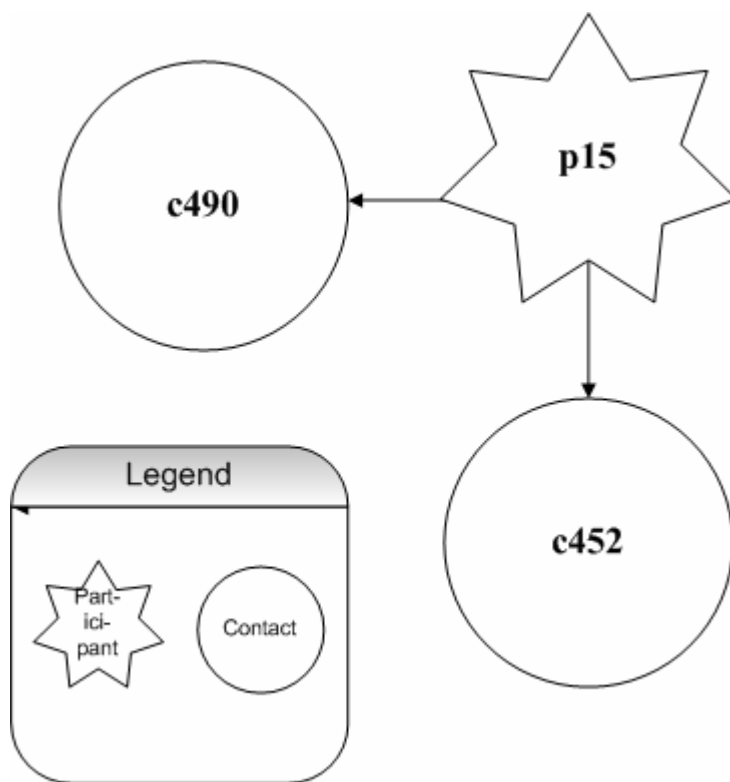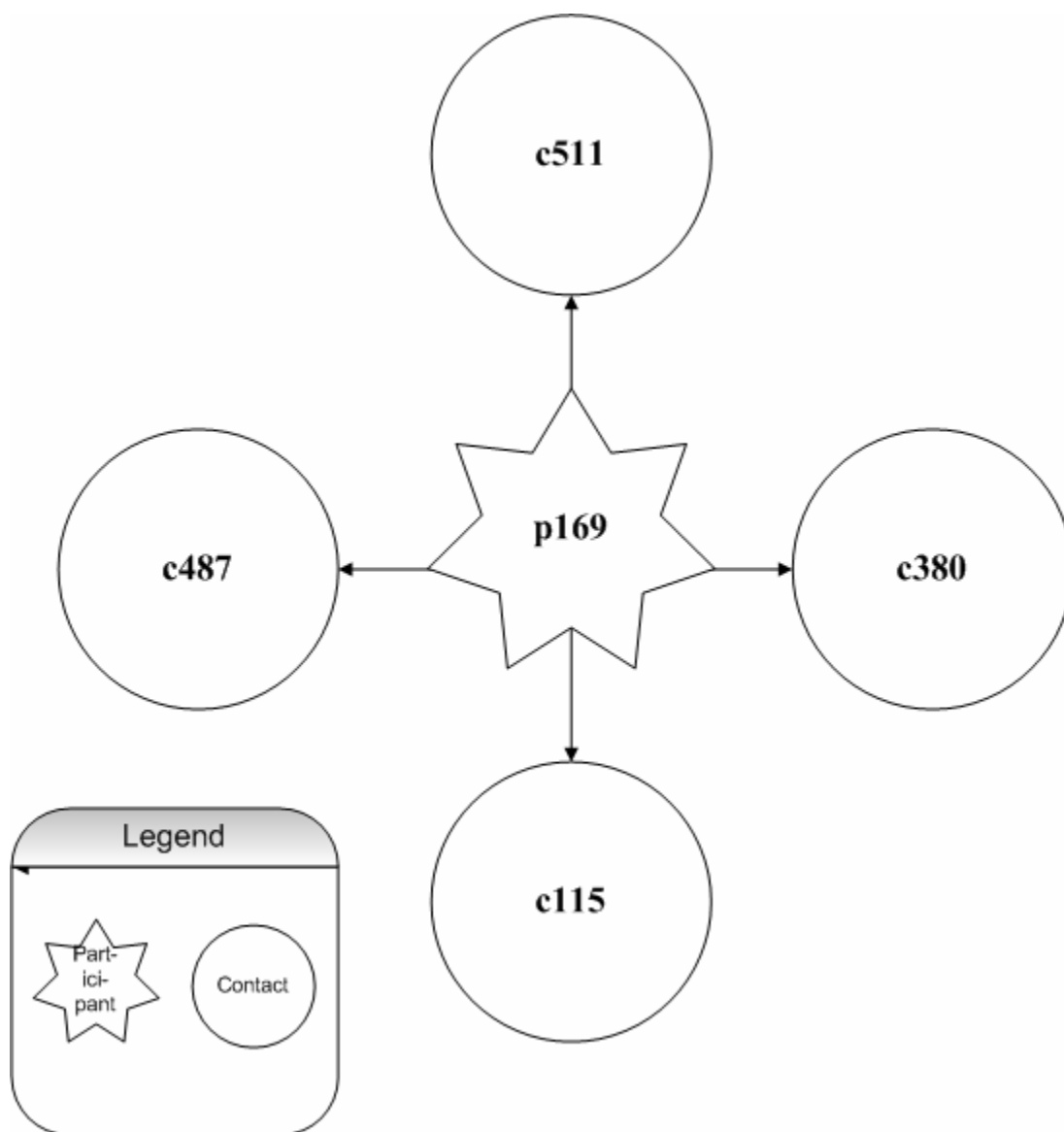
Figure 25: Personal Network Model of p15
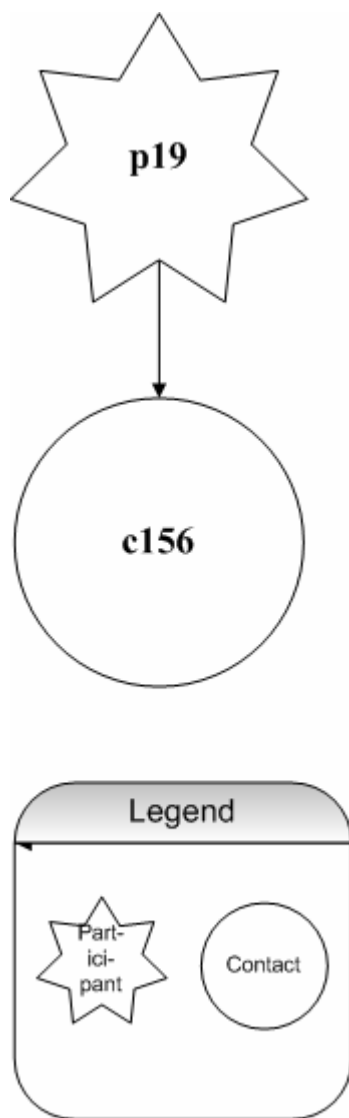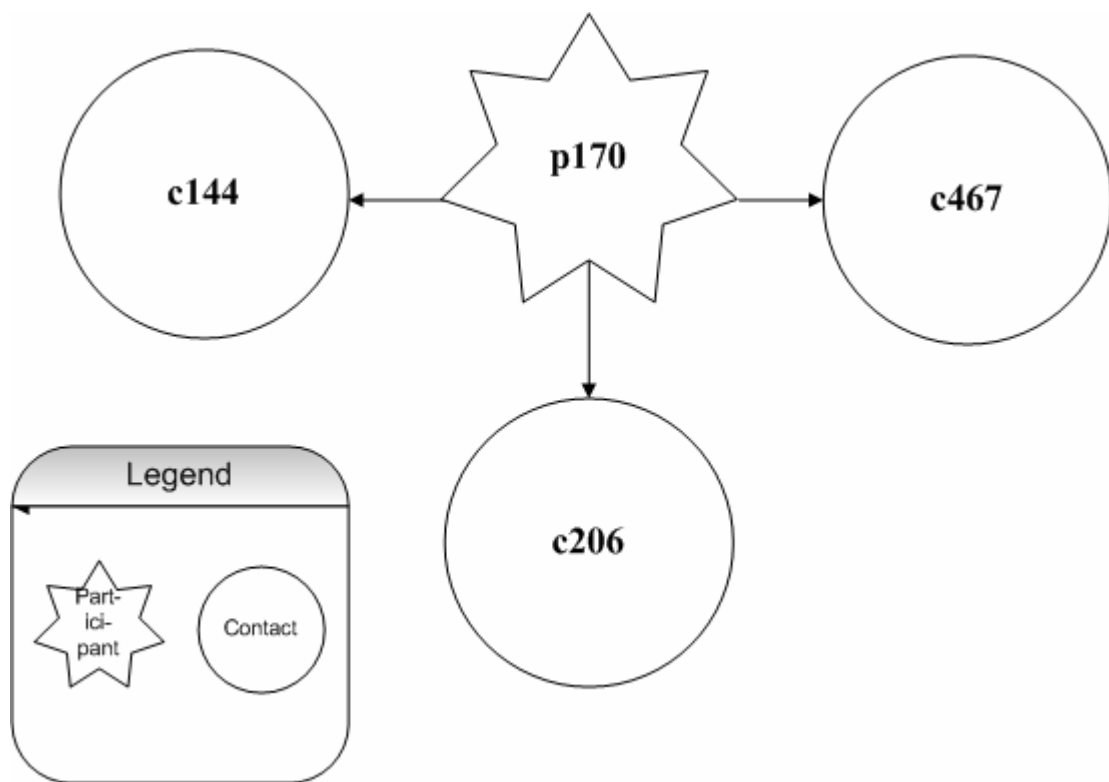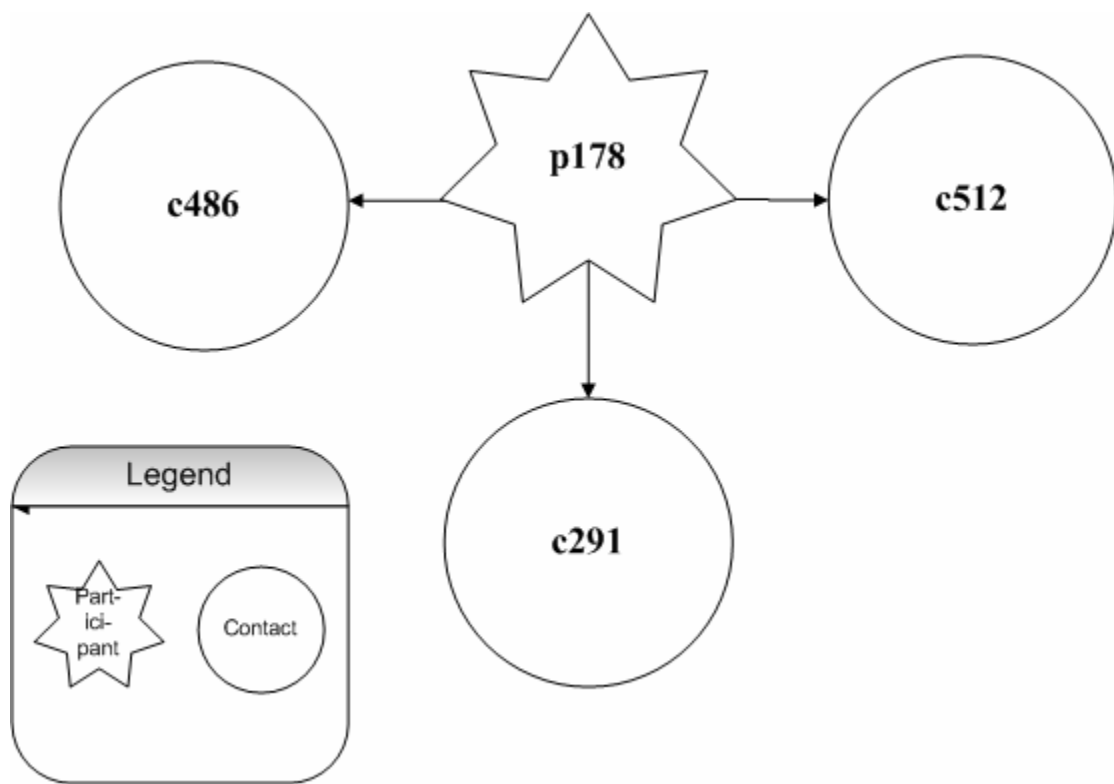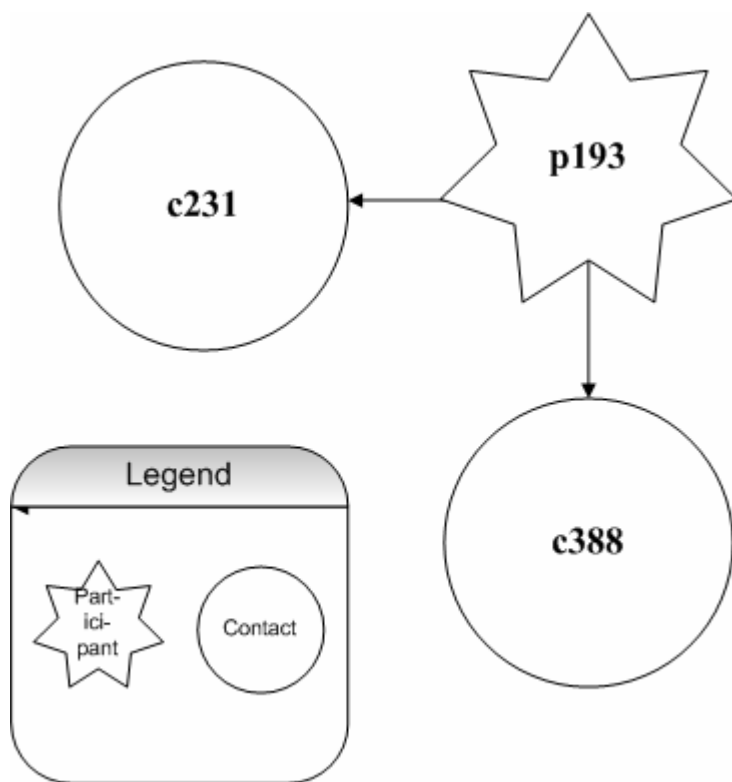
Figure 26: Personal Network Model of p19
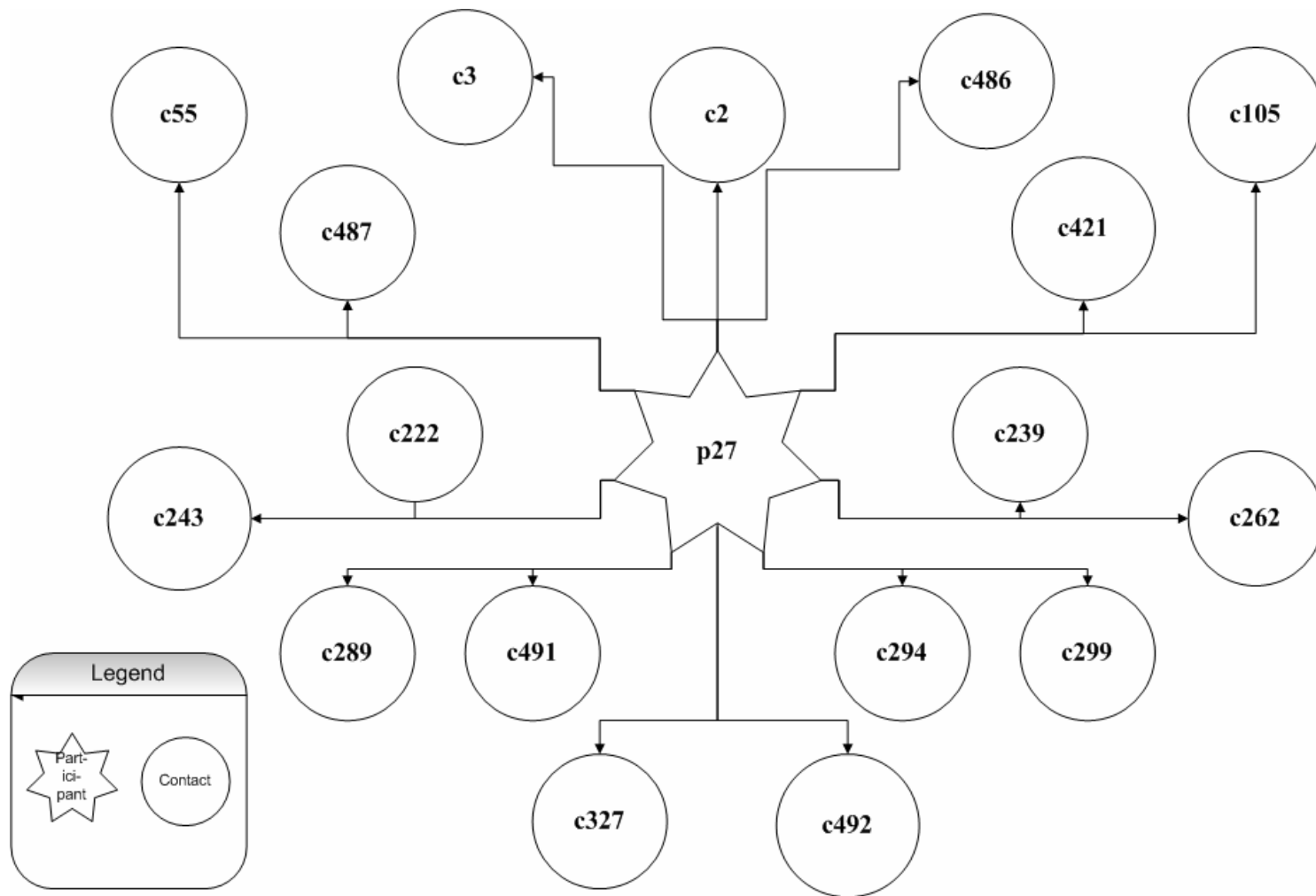
Figure 27: Personal Network Model of p27
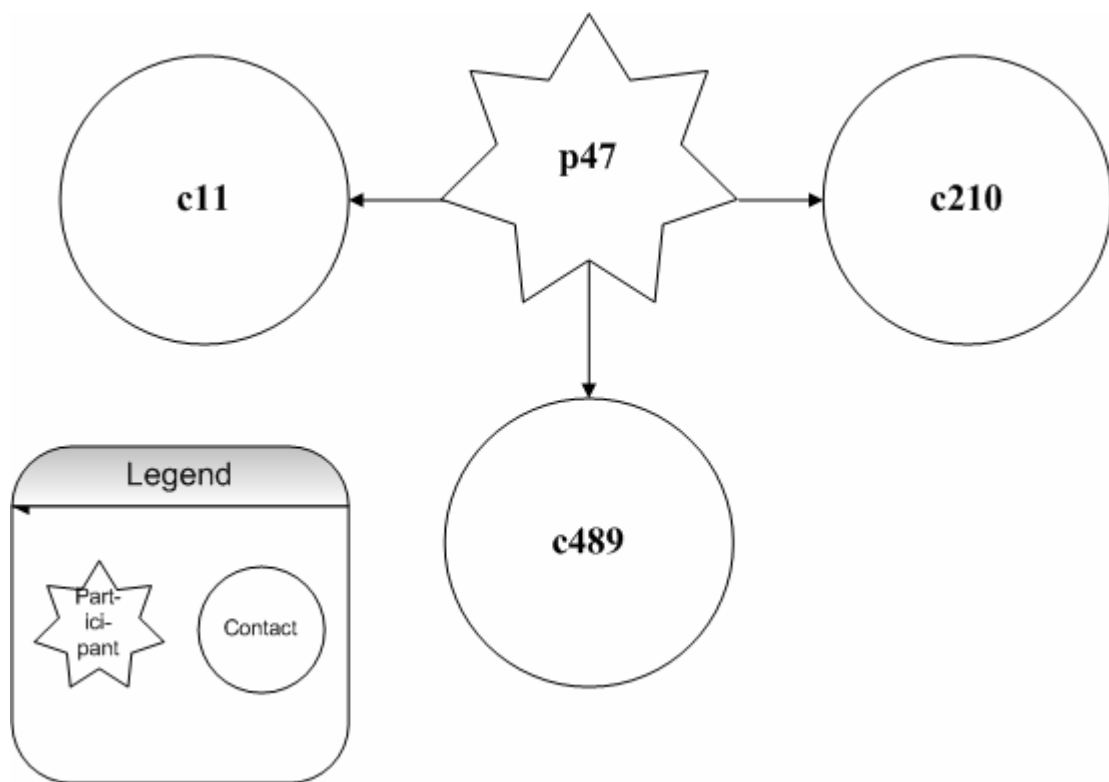
Figure 28: Personal Network Model of p47
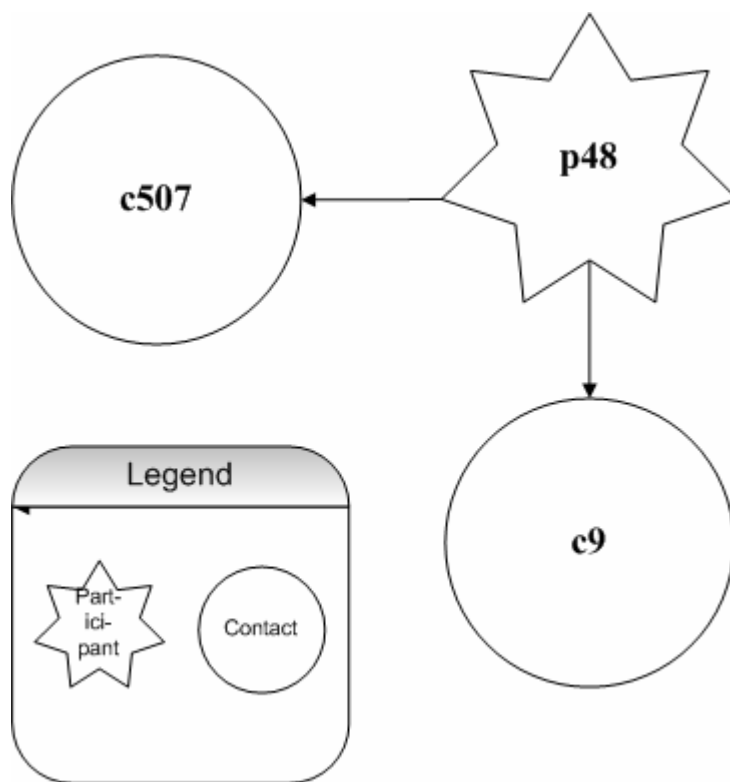
Figure 29: Personal Network Model of p48
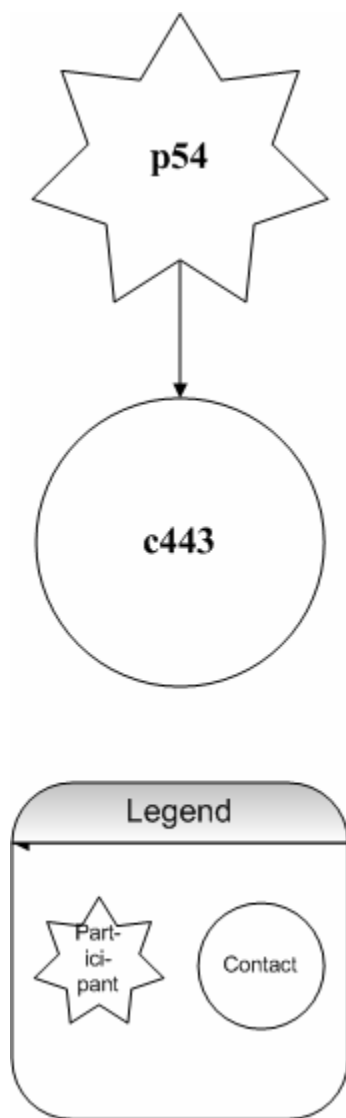
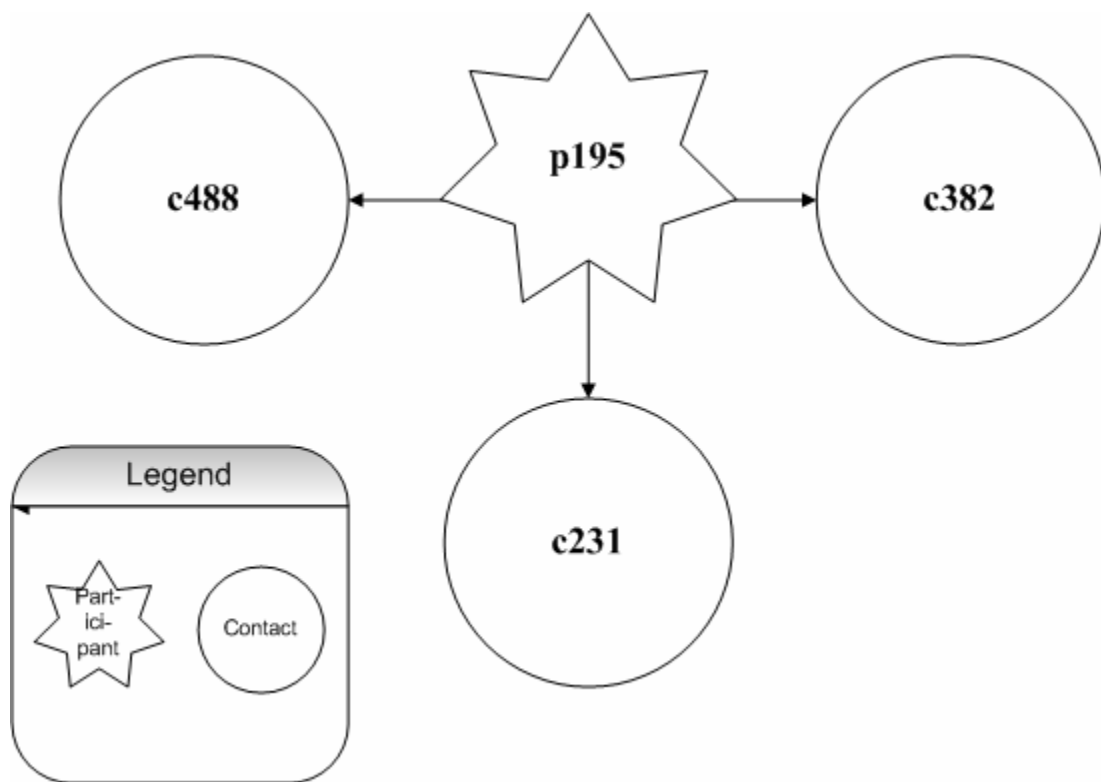*Figure 30: Personal Network Model of p54*
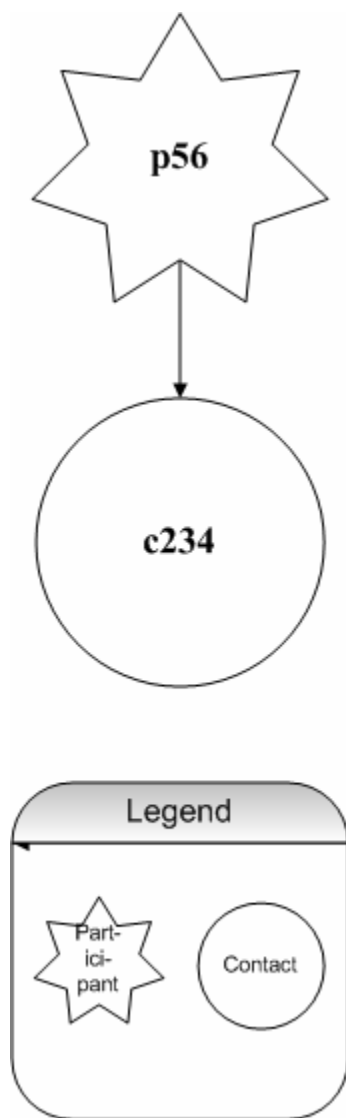
Figure 31: Personal Network Model of p56
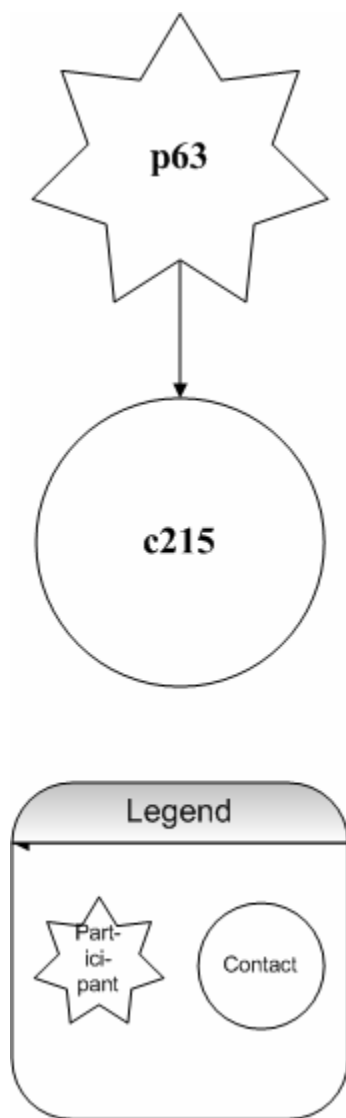
Figure 32: Personal Network Model of p63
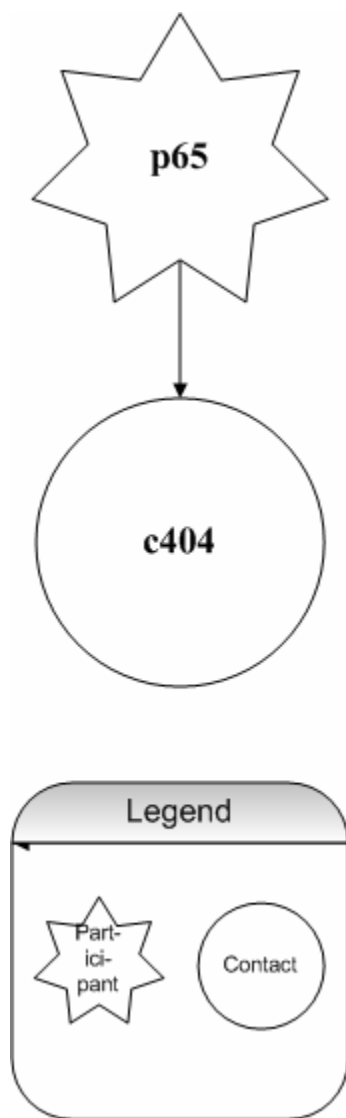
Figure 33: Personal Network Model of p65
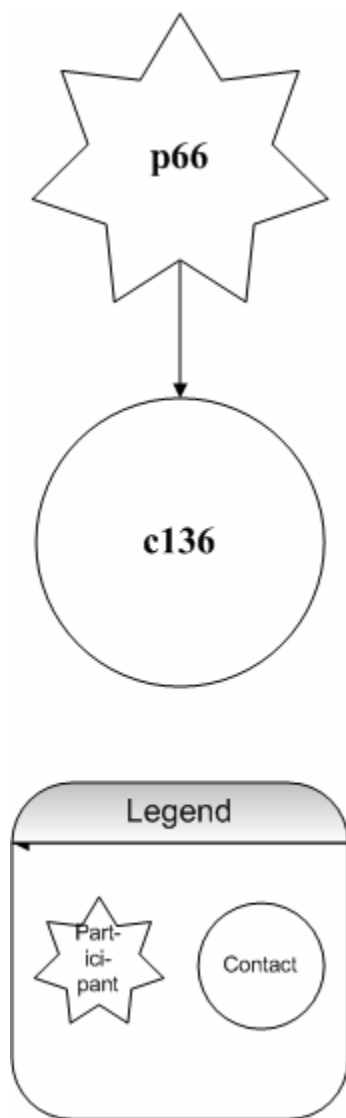
Figure 34: Personal Network Model of p66
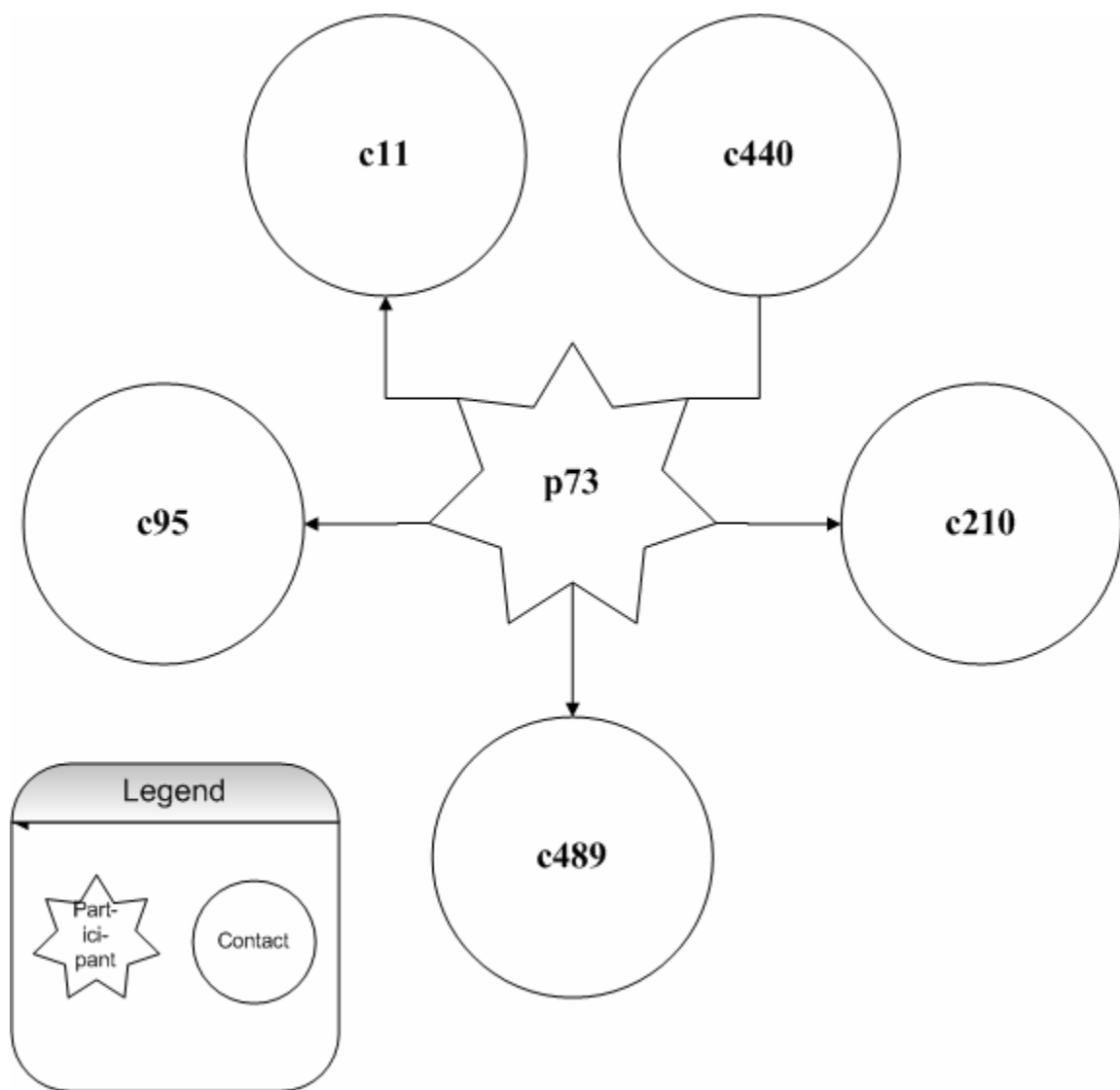
Figure 35: Personal Network Model of p73
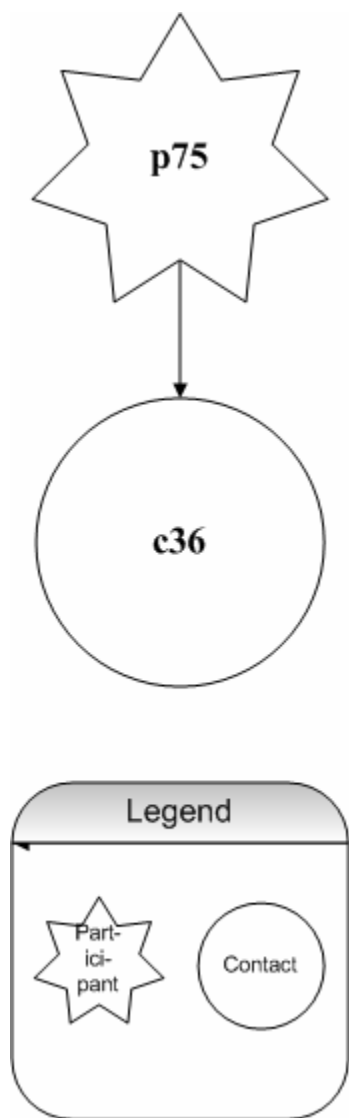
Figure 36: Personal Network Model of p75
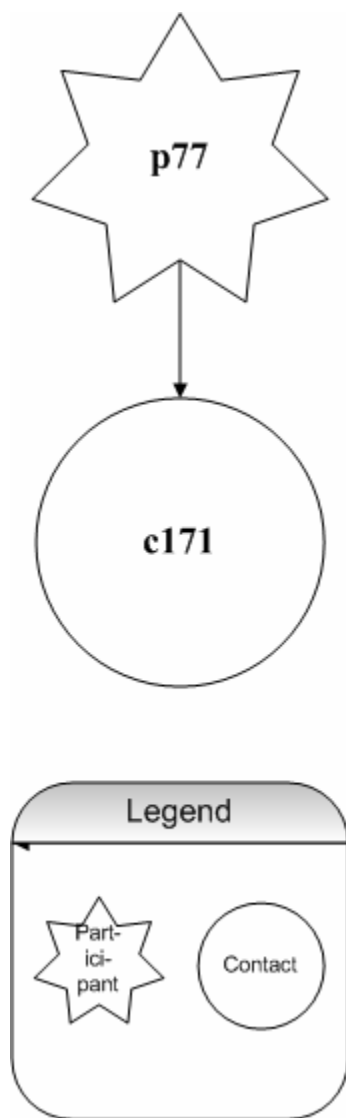
Figure 37: Personal Network Model of p77
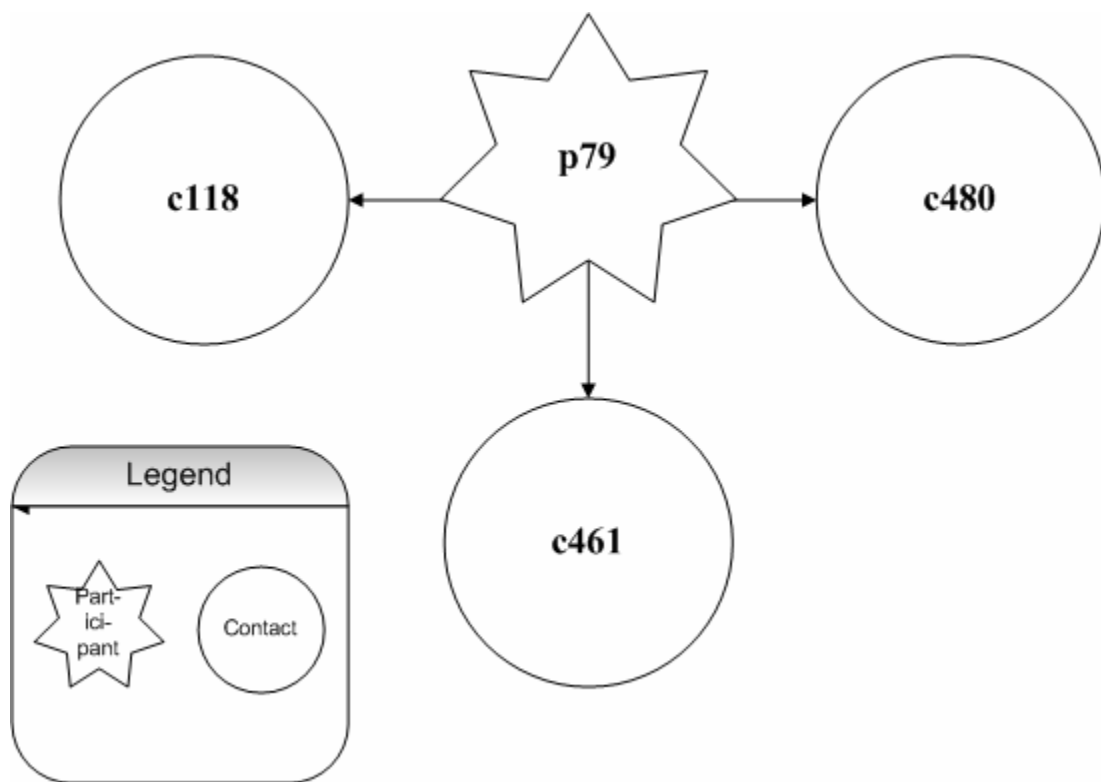
Figure 38: Personal Network Model of p79
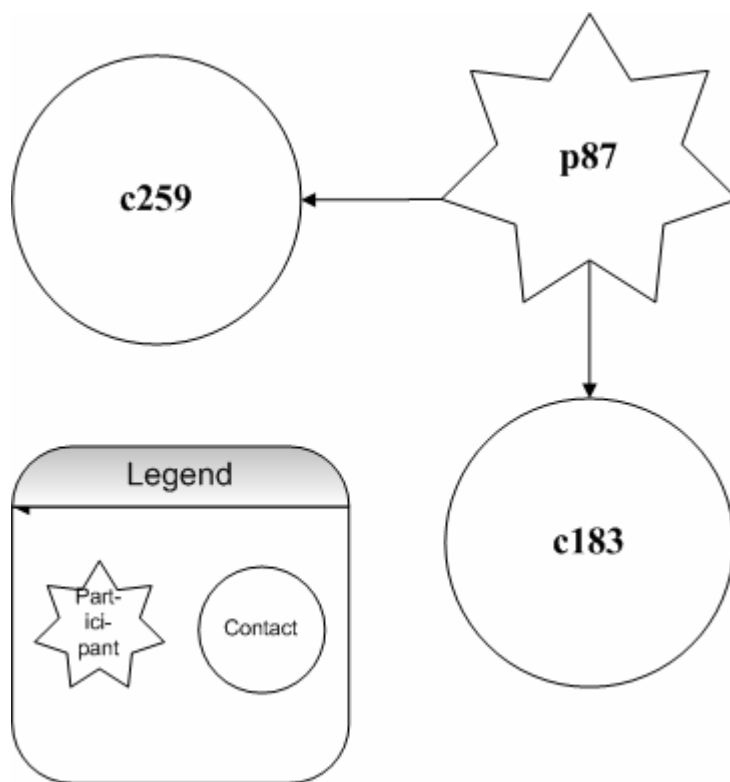
Figure 39: Personal Network Model of p87
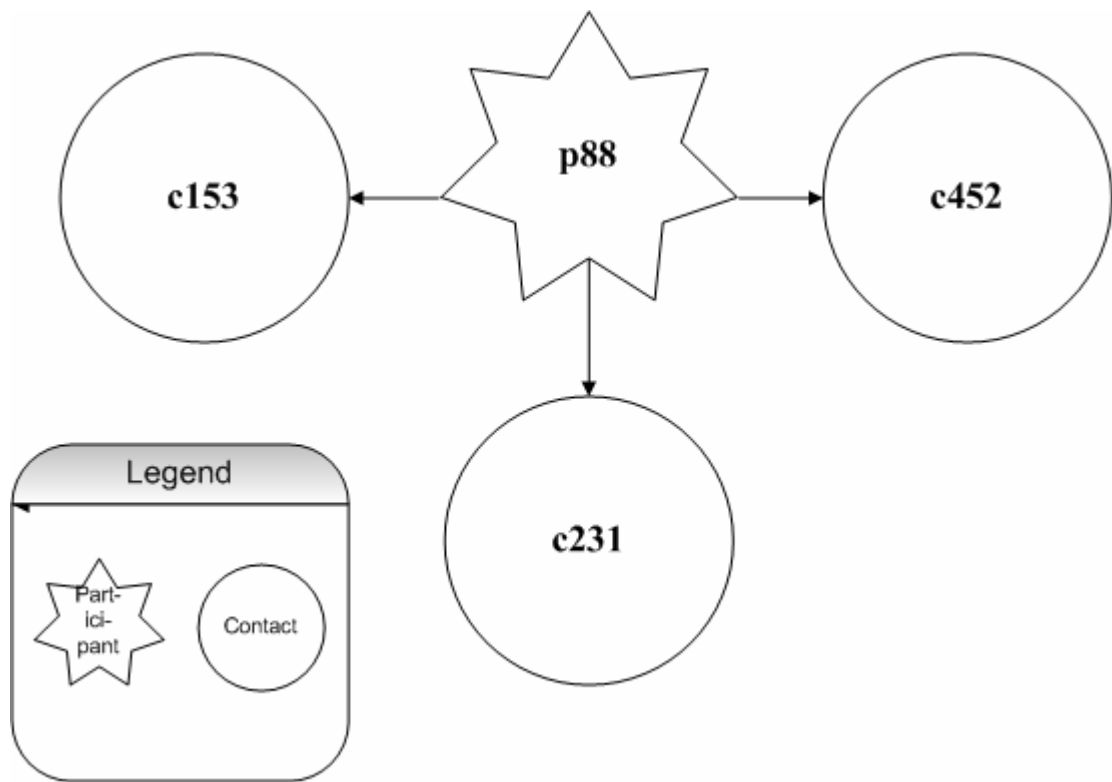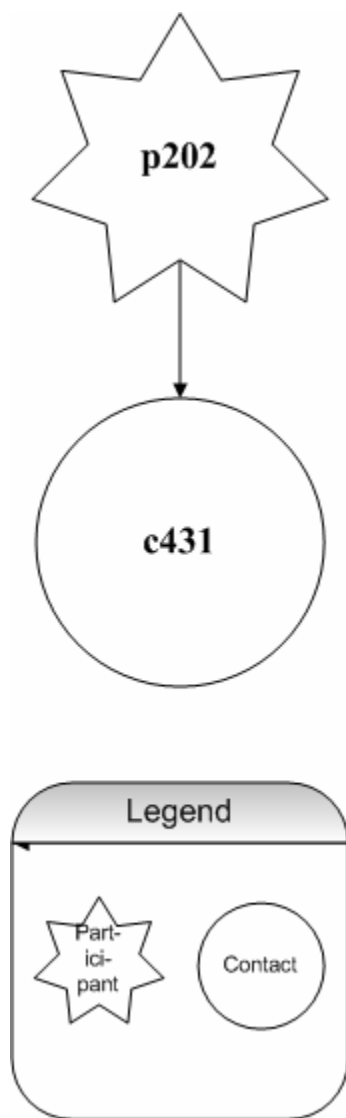
Figure 40: Personal Network Model of p88
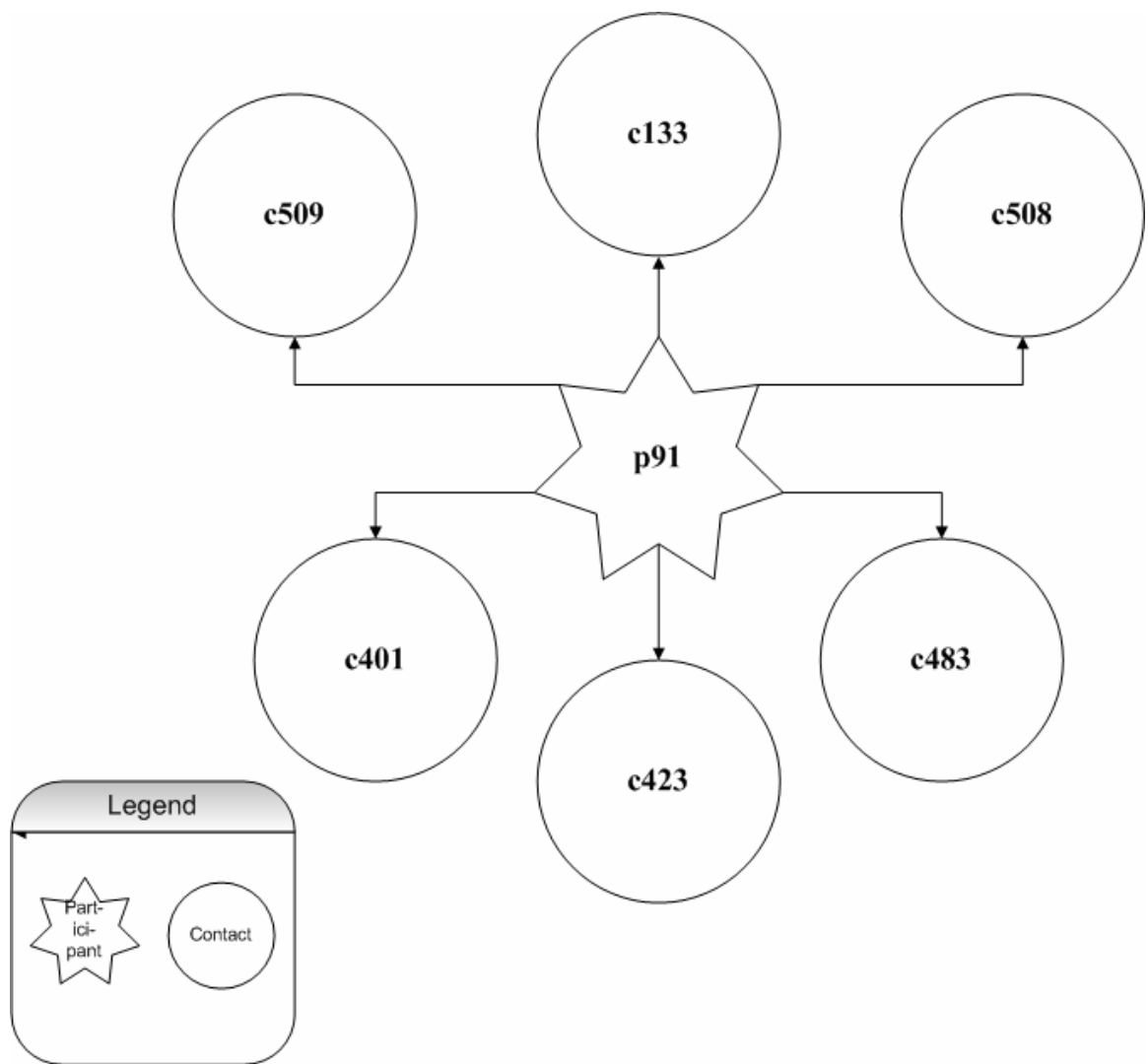
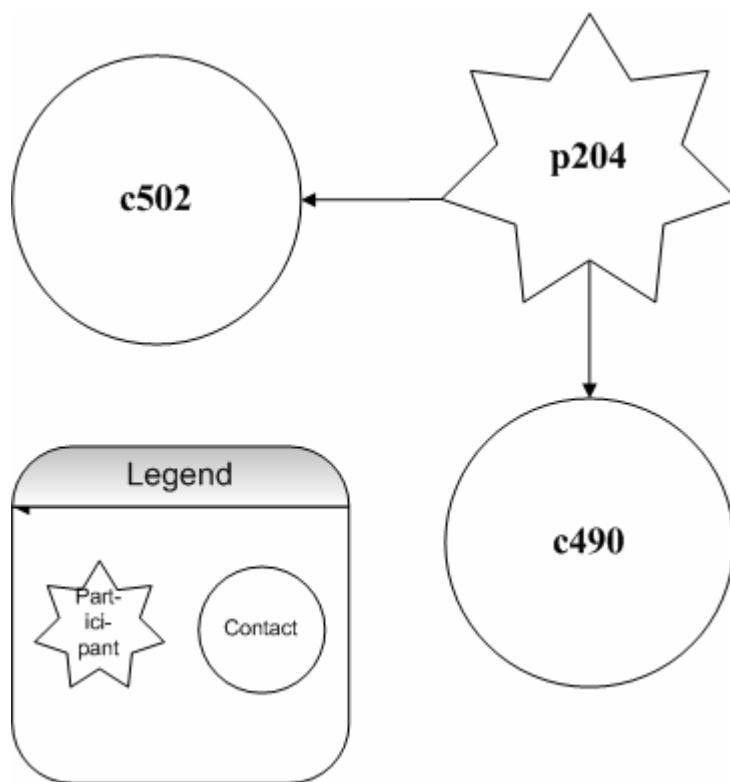*Figure 41: Personal Network Model of p91*
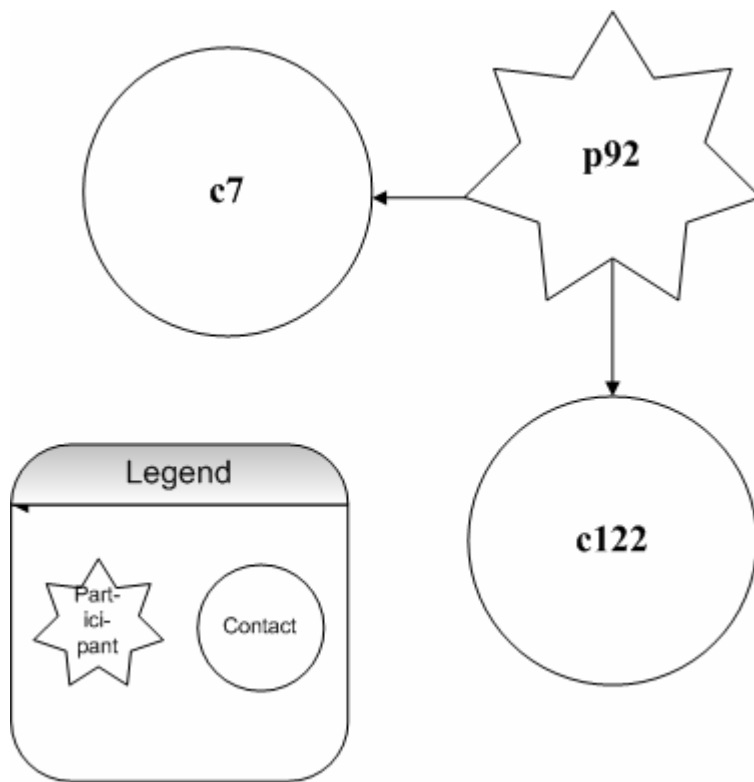
Figure 42: Personal Network Model of p92
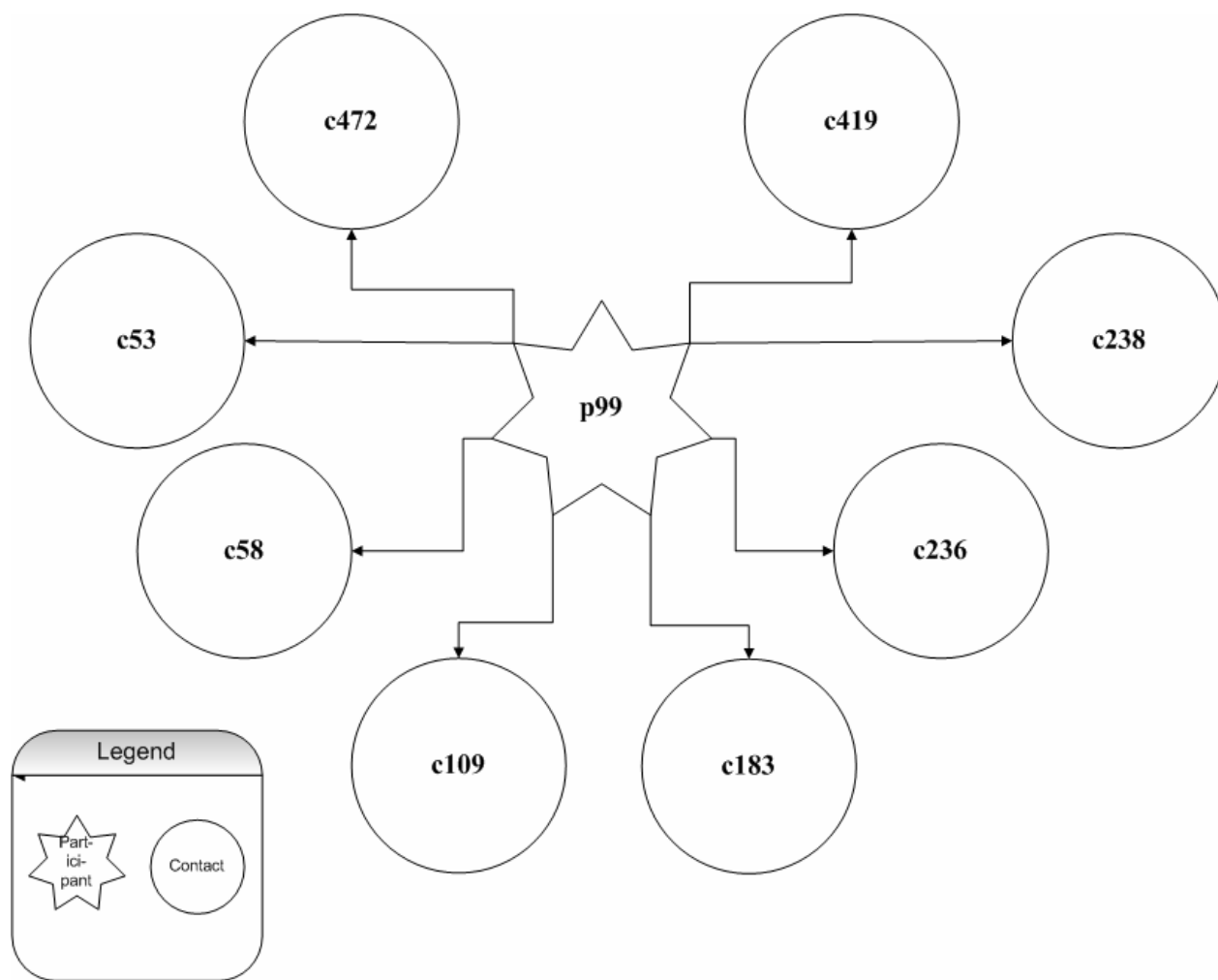
Figure 43: Personal Network Model of p99
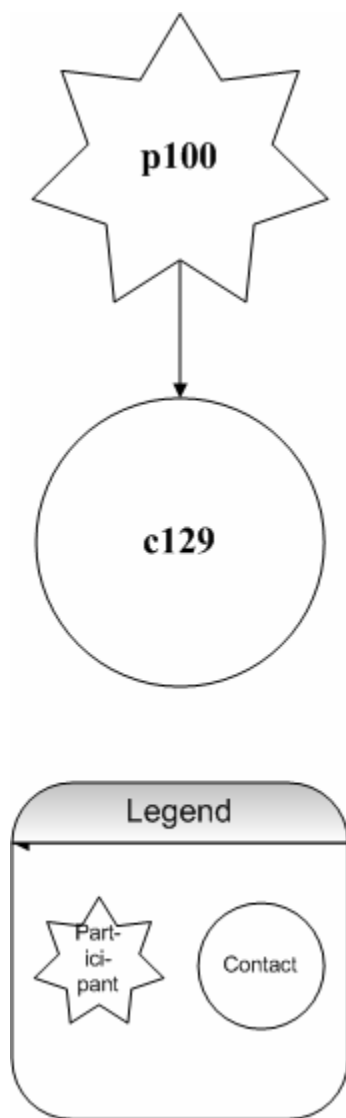
Figure 44: Personal Network Model of p100
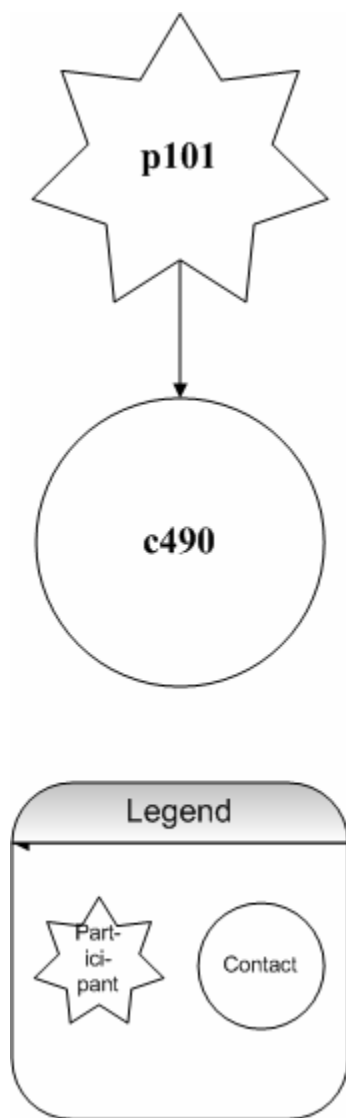
Figure 45: Personal Network Model of p101
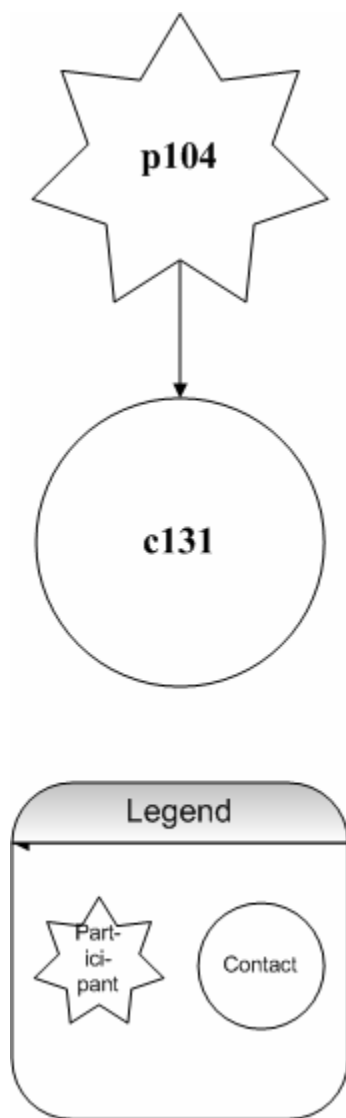
Figure 46: Personal Network Model of p104
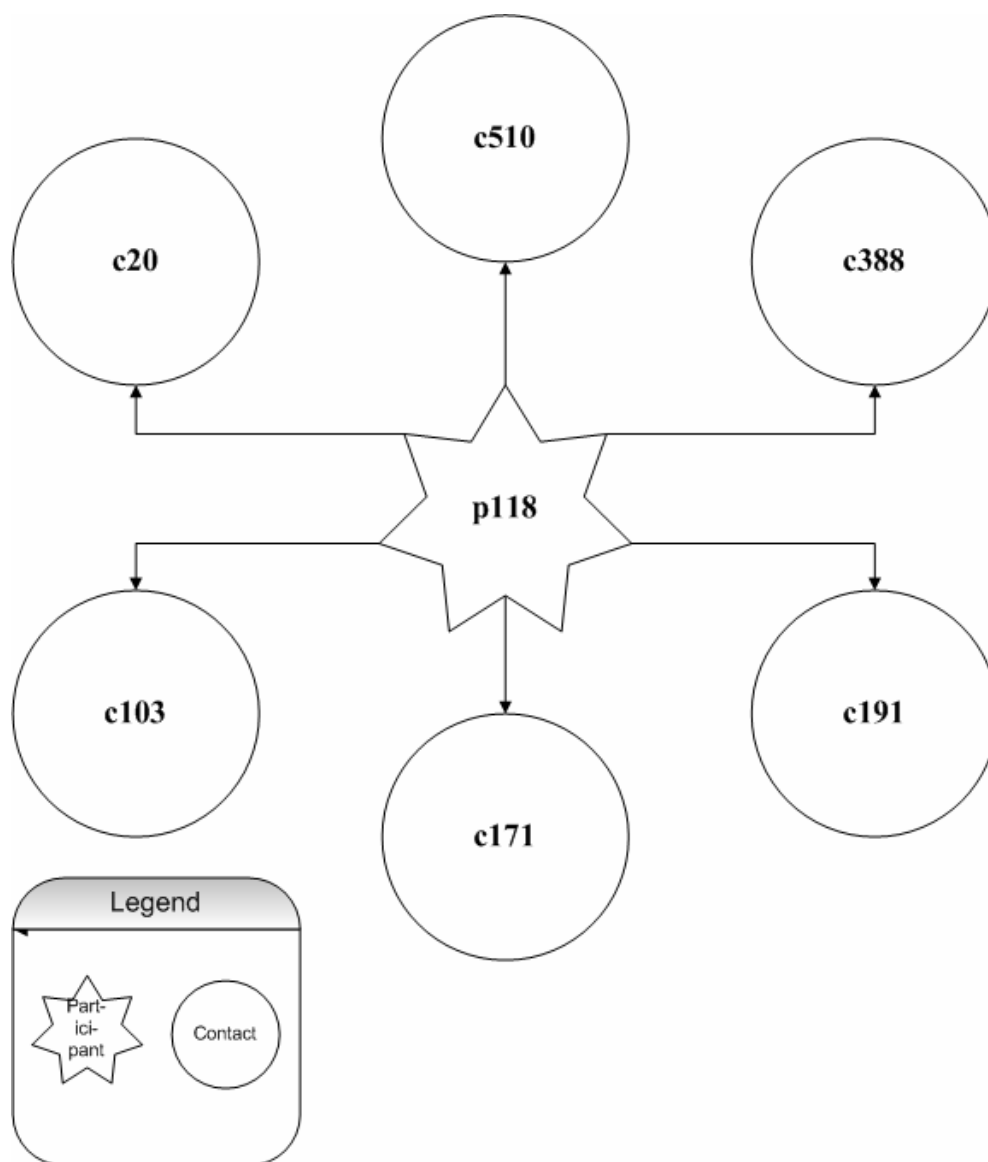
Figure 47: Personal Network Model of p118
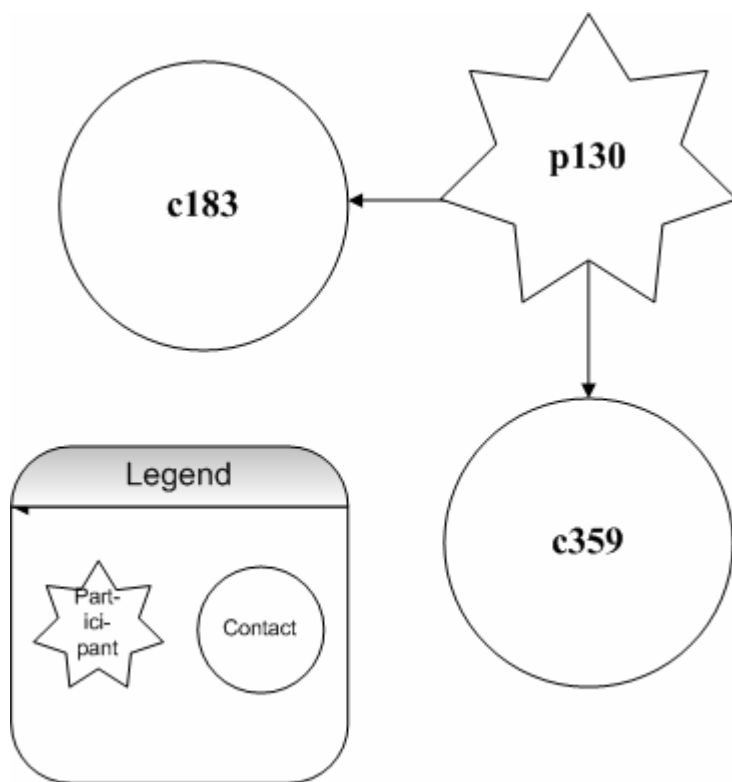
Figure 48: Personal Network Model of p130
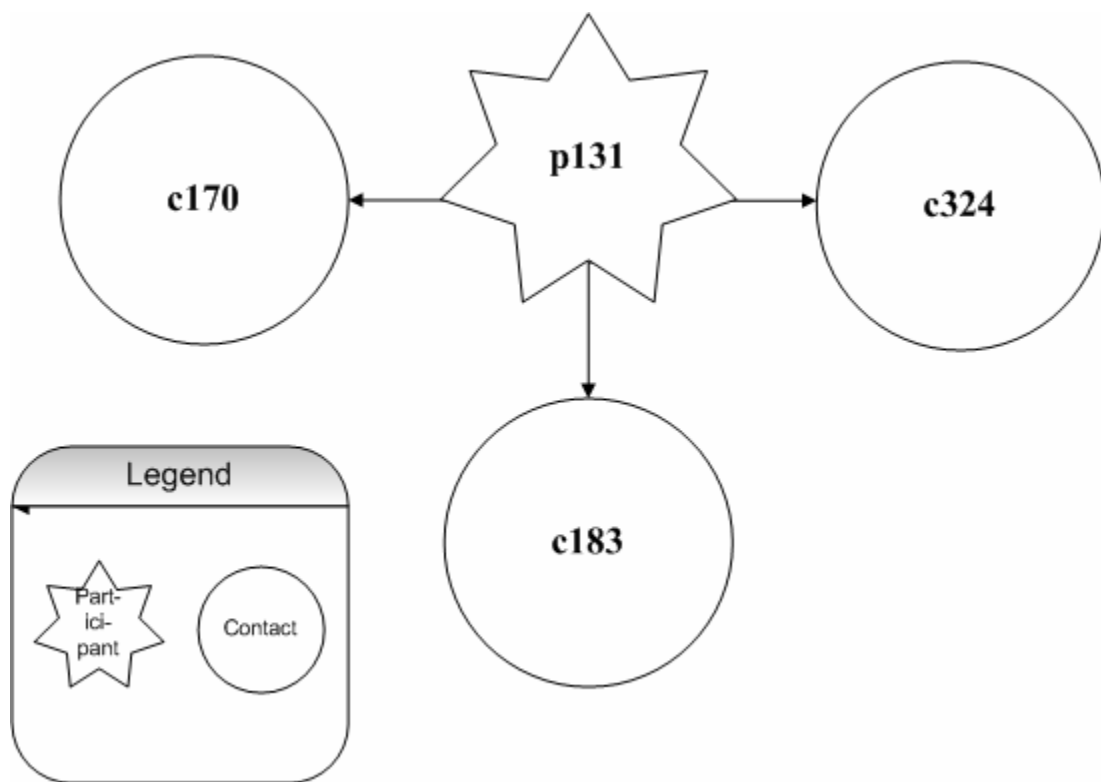
Figure 49: Personal Network Model of p131
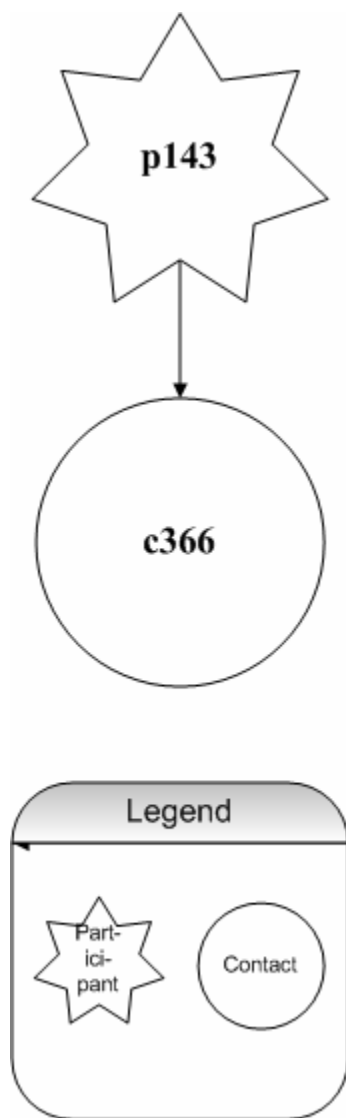
Figure 50: Personal Network Model of p143
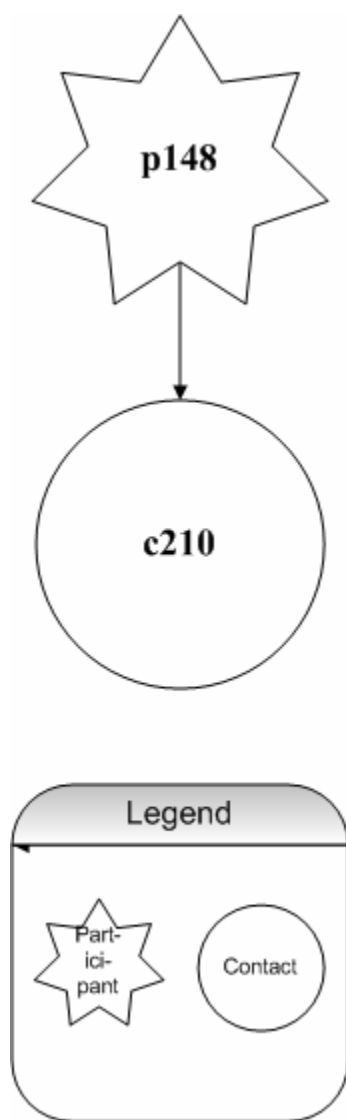
Figure 51: Personal Network Model of p148
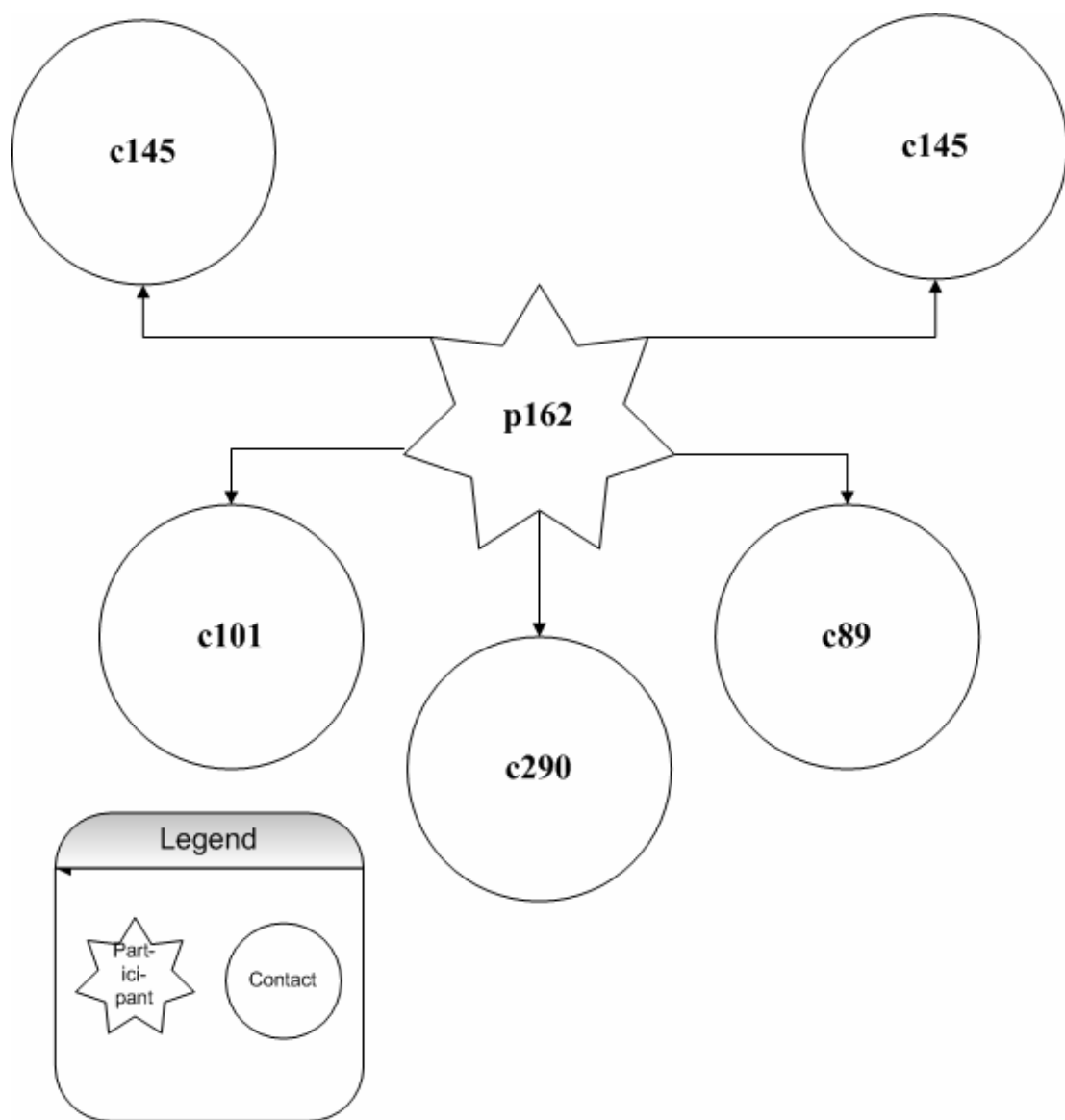
Figure 52: Personal Network Model of p162
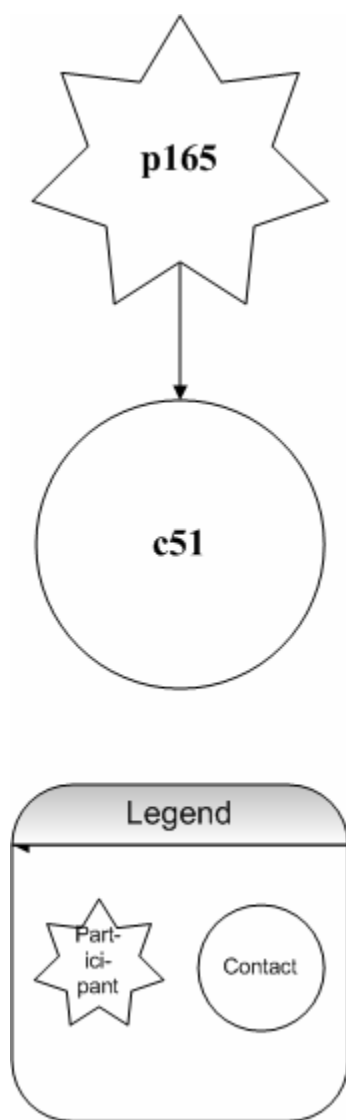
Figure 53: Personal Network Model of p165
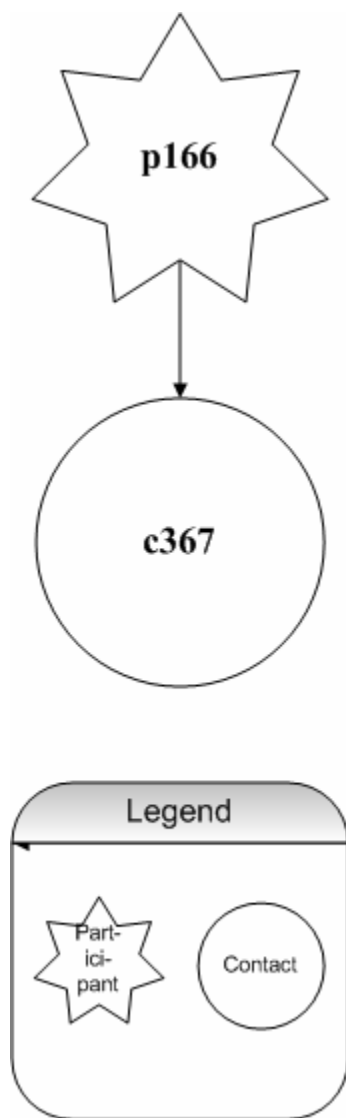
Figure 54: Personal Network Model of p166
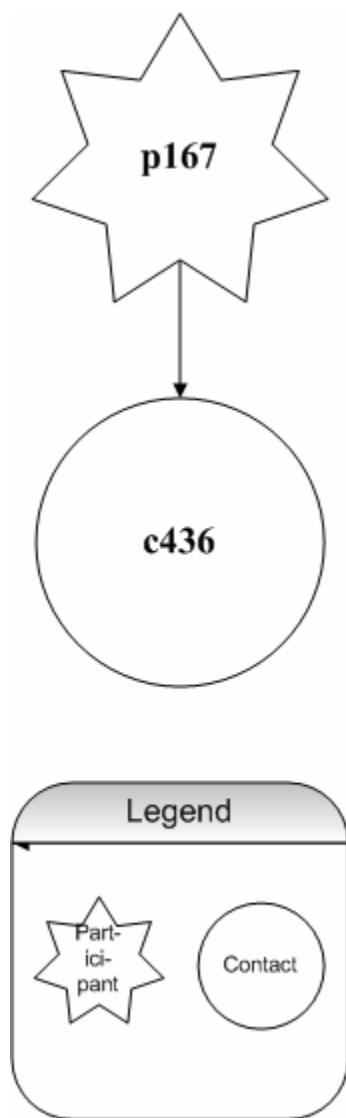
Figure 55: Personal Network Model of p167

Figure 56: Personal Network Model of p169

Figure 57: Personal Network Model of p170

Figure 58: Personal Network Model of p178

Figure 59: Personal Network Model of p193

Figure 60: Personal Network Model of p195

Figure 61: Personal Network Model of p202

Figure 62: Personal Network Model of p204
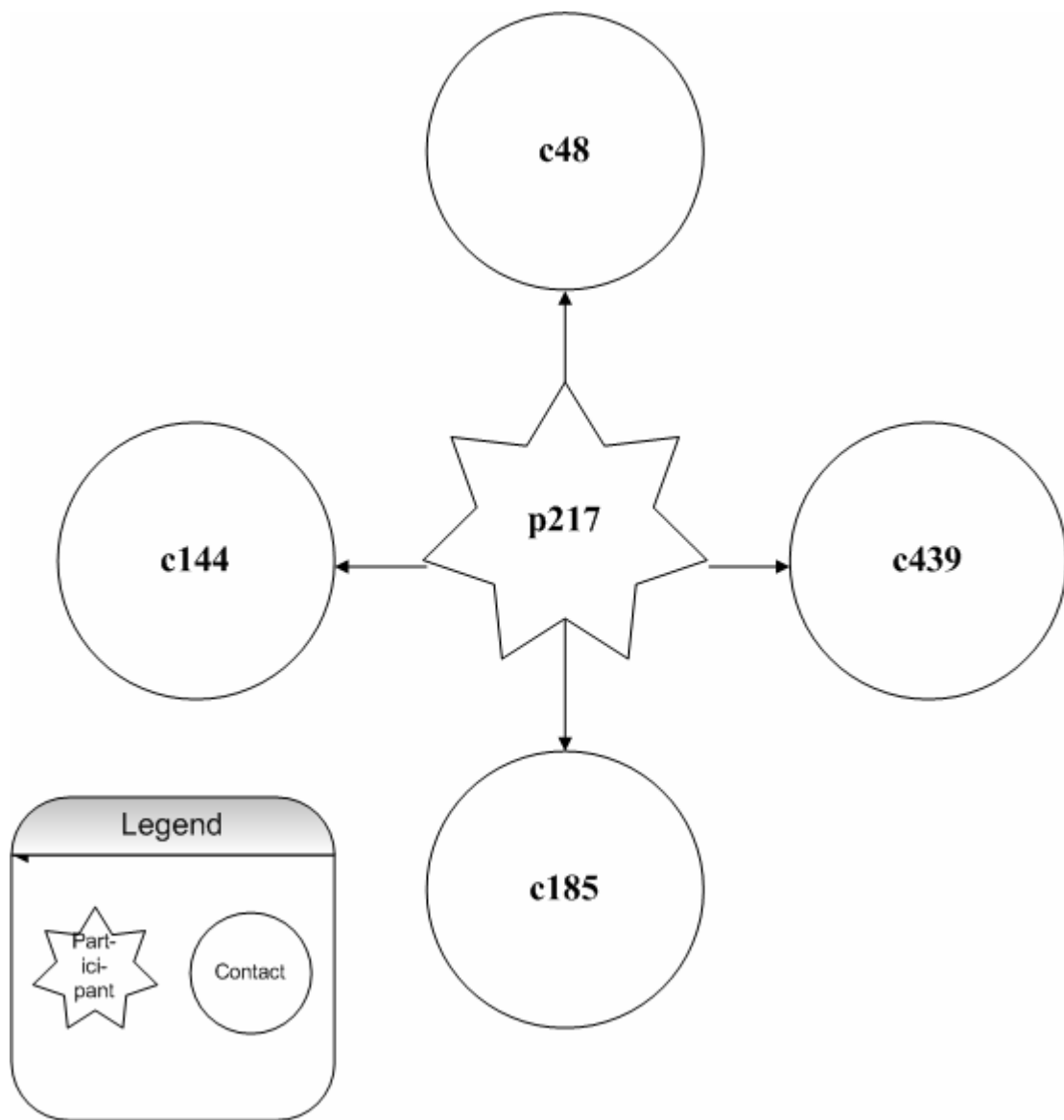
Figure 63: Personal Network Model of p217
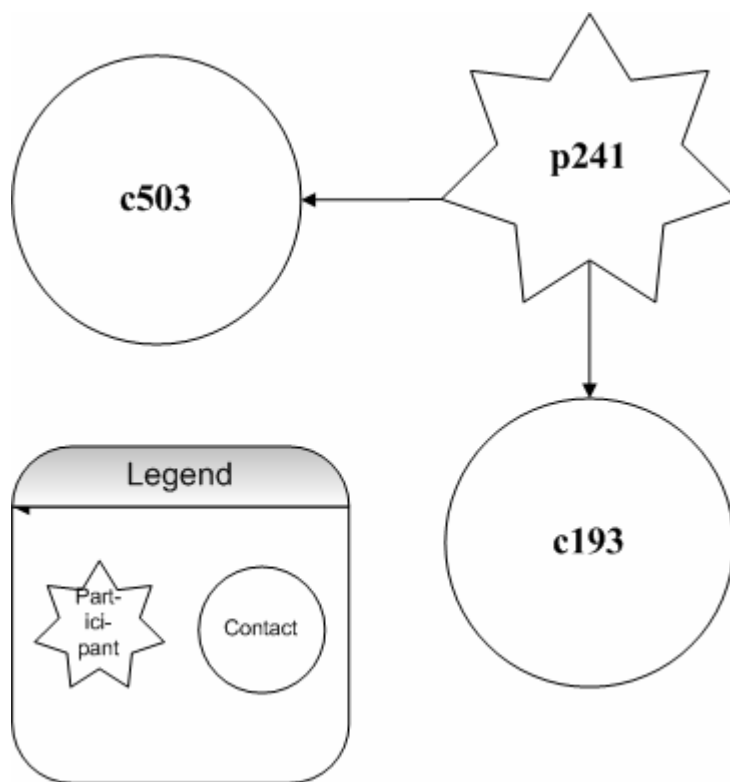
Figure 64: Personal Network Model of p241

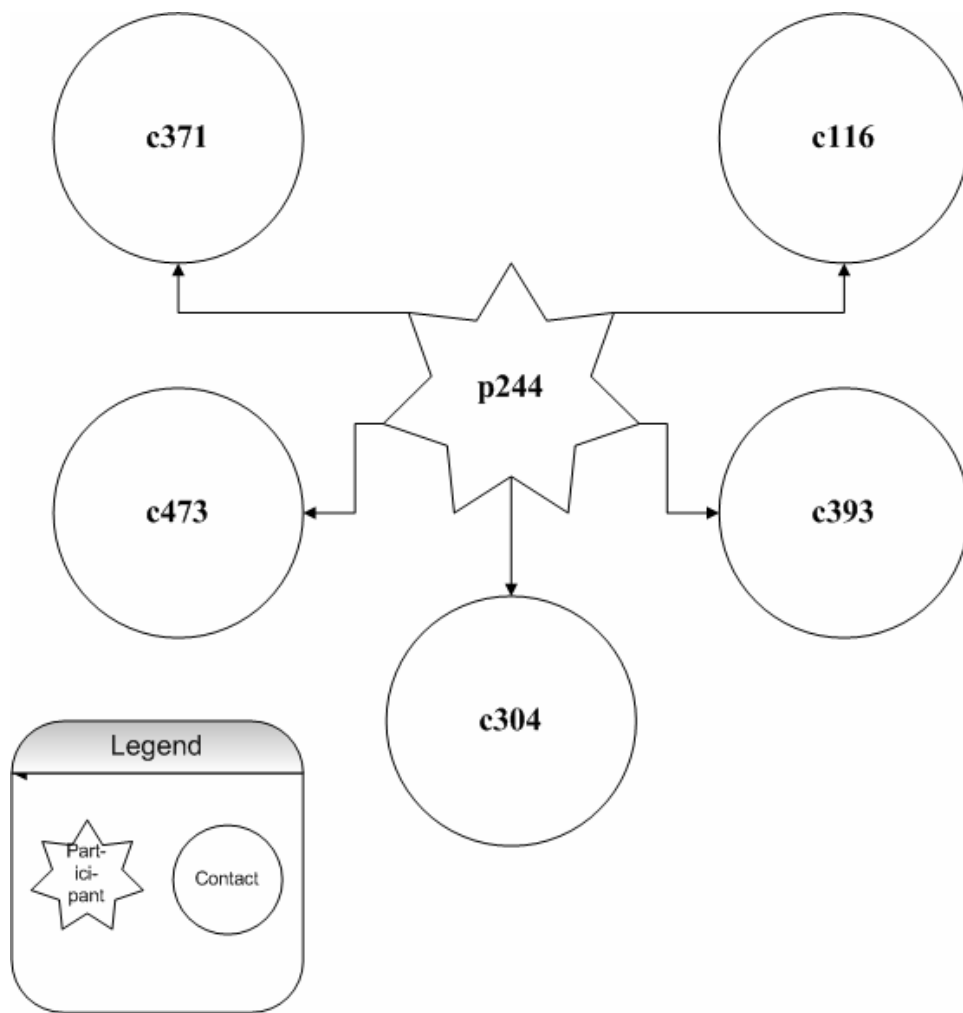*Figure 65: Personal Network Model of p244*

APPENDIX K:

SOCIAL NETWORK DATA AND MODELS

Table 35: Social Networks of Two Faculty Discussing Teaching Online

Identified by One Participant	Participant
c2	p27-c56
c3	p27-c56
p3-c7	p92-c178
c20	p118-c231
p11-c27	p154-c300
p15-c33	p239-c466
c36	p75-c151
c40	p35-c78
c47	p124-c246
c48	p217-c418
p26-c51	p165-c320
c53	p99-c193
c55	p27-c56
c58	p99-c193
c63	p154-c300
c64	p154-c300
c72	p26-c51
p35-c78	p220-c423
c80	p220-c423
c88	p239-c466
p48-c97	p18-c38
c100	p35-c78
p52-c101	p162-c314
c103	p118-c231
c105	p27-c56
c109	p99-c193
c115	p169-c329
c116	p244-c476
c118	p79-c157
c124	p179-c350
c130	p176-c343
c131	p104-c203
c142	p239-c466
c145	p162-c314
p73-c148	p4-c11
p75-c151	p35-c78
p77-c153	p88-c171
c154	p154-c300
c158	p154-c300
c159	p4-c11
c167	p18-c38

Identified by One Participant	Participant
p87-c170	p195-c388
c173	p124-c246
p92-c178	p3-c7
c184	p124-c246
c185	p217-c418
c191	p118-c231
p99-c193	p241-c472
c198	p18-c38
c206	p170-c330
c219	p220-c423
c223	p154-c300
c224	p154-c300
c227	p239-c466
c228	p179-c350
c232	p35-c78
c233	p35-c78
c234	p56-c107
c236	p99-c193
c238	p99-c193
c239	p27-c56
c243	p27-c56
c257	p35-c78
c265	p239-c466
c268	p154-c300
c270	p154-c300
c276	p154-c300
c281	p26-c51
c282	p154-c300
c285	p18-c38
c289	p27-c56
c291	p178-c345
c292	p35-c78
c294	p27-c56
c297	p154-c300
c299	p27-c56
p154-c300	p154-c300
p155-c302	p35-c78
c305	p154-c300
c309	p154-c300
c313	p154-c300
c319	p154-c300
p165-c320	p26-c51
p167-c323	p35-c78

Identified by One Participant	Participant
c324	p195-c388
c327	p27-c56
p178-c345	p124-c246
c348	p239-c466
c356	p239-c466
c359	p130-c256
c365	p154-c300
c366	p143-c286
c367	p166-c321
c380	p169-c329
p193-c382	p195-c388
c393	p244-c476
p200-c396	p154-c300
c401	p91-c177
c403	p35-c78
c404	p65-c138
c405	p40-c86
c407	p35-c78
c408	p176-c343
c414	p18-c38
c419	p99-c193
c421	p27-c56
c422	p179-c350
c436	p167-c323
c437	p154-c300
c439	p217-c418
c440	p73-c148
c443	p54-c104
c447	p18-c38
c451	p154-c300
c463	p239-c466
c467	p170-c330
c471	p154-c300
p241-c472	p99-c193
c474	p239-c466
c483	p91-c177
c495	p35-c78

Table 36: Social Networks of Two Faculty Discussing Teaching Online

Identified by Two Participants	Participants	
c9	p18-c38	p48-c97
p4-c11	p47-c95	p73-c148
c12	p154-c300	p98-c192
p19-c41	p124-c246	p98-c192
c60	p154-c300	p98-c192
c85	p35-c78	p220-c423
c89	p162-c314	p140-c280
p47-c95	p73-c148	p4-c11
c106	p124-c246	p154-c300
c122	p92-c178	p3-c7
c129	p242-c473	p100-c197
c136	p40-c86	p66-c139
c137	p124-c246	p154-c300
p66-c139	p40-c86	p242-c473
c141	p124-c246	p154-c300
c144	p170-c330	p217-c418
c146	p35-c78	p220-c423
c149	p239-c466	p154-c300
c180	p154-c300	p220-c423
c190	p162-c314	p140-c280
p98-c192	p124-c246	p154-c300
c215	p154-c300	p63-c133
c218	p124-c246	p154-c300
c250	p124-c246	p98-c192
c262	p124-c246	p27-c56
c344	p40-c86	p242-c473
c354	p35-c78	p220-c423
c371	p242-c473	p244-c476
p195-c388	p193-c382	p118-c231
c402	p35-c78	p220-c423
c415	p154-c300	p98-c192
p220-c423	p91-c177	p35-c78
c425	p35-c78	p220-c423
c431	p202-c398	p26-c51
c432	p124-c246	p154-c300
c434	p124-c246	p154-c300
c452	p88-c171	p15-c33
c461	p79-c157	p176-c343
p242-c473	p40-c86	p244-c476
c480	p79-c157	p176-c343
c496	p18-c38	p154-c300
c500	p124-c246	p26-c51

Table 37: Social Networks of Three Faculty Discussing Teaching Online

Identified by Three Participants	Participants		
p63-c133	p124-c246	p154-c300	p91-c177
c156	p195-c388-c388	p124-c246	p154-c300
p88-c171	p77-c153	p118-c231	p176-c343
c222	p154-c300	p27-c56	p98-c192
p118-c231	p193-c382	p195-c388	p88-c171
p124-c246	p179-c350	p124-c246	p154-c300
c304	p244-c476	p40-c86	p242-c473
p179-c350	p124-c246	p98-c192	p98-c192
c482	p118-c231	p124-c246	p154-c300
c489	p47-c95	p73-c148	p26-c51
c490	p204-c400	p101-c199	p15-c33

Table 38: Social Networks of Four Faculty Discussing Teaching Online

Identified by Four Participants	Participants			
c183	p87-c170	p130-c256	p195-c388	p99-c193
c210	p148-c293	p47-c95	p73-c148	p4-c11
c486	p239-c466	p178-c345	p176-c343	p27-c56
c488	p195-c388	p239-c466	p124-c246	p242-c473

Table 39: Social Networks of Five Faculty Discussing Teaching Online

Identified by Five Participants	Participants				
c487	p124-c246	p176-c343	p35-c78	p27-c56	p169-c329
c491	p124-c246	p154-c300	p35-c78	p26-c51	p27-c56
c497	p155-c302	p239-c466	p242-c473	p40-c86	p140-c280

Table 40: Social Networks of Six Faculty Discussing Teaching Online

Identified by Six Partici-pants	Participants					
c492	p154-c300	p35-c78	p26-c51	p27-c56	p98-c192	p220-c423
c494	p200-c396	p179-c350	p18-c38	p239-c466	p124-c246	p35-c78
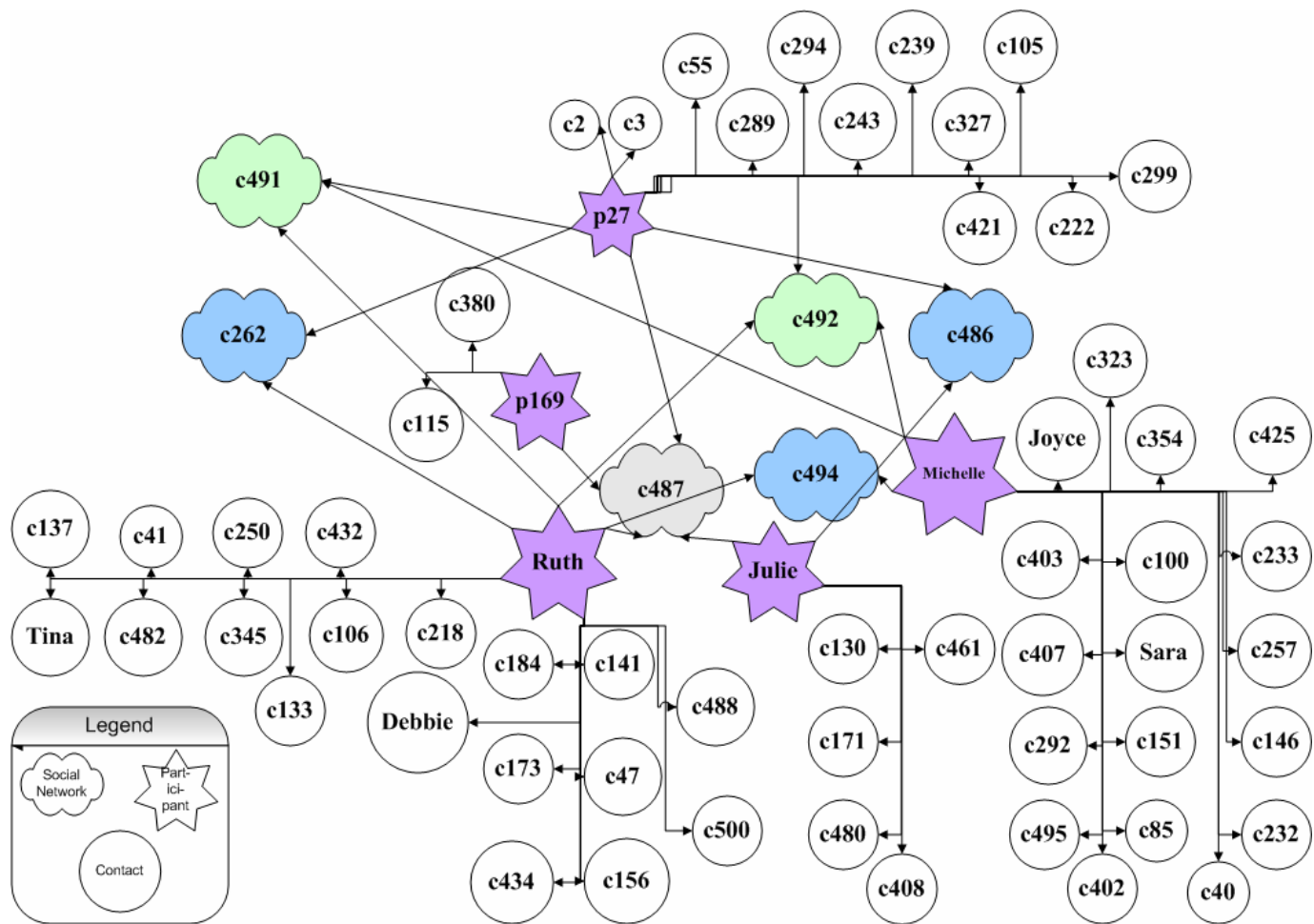
Figure 66: Social Network Model of c487
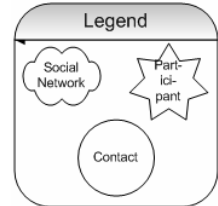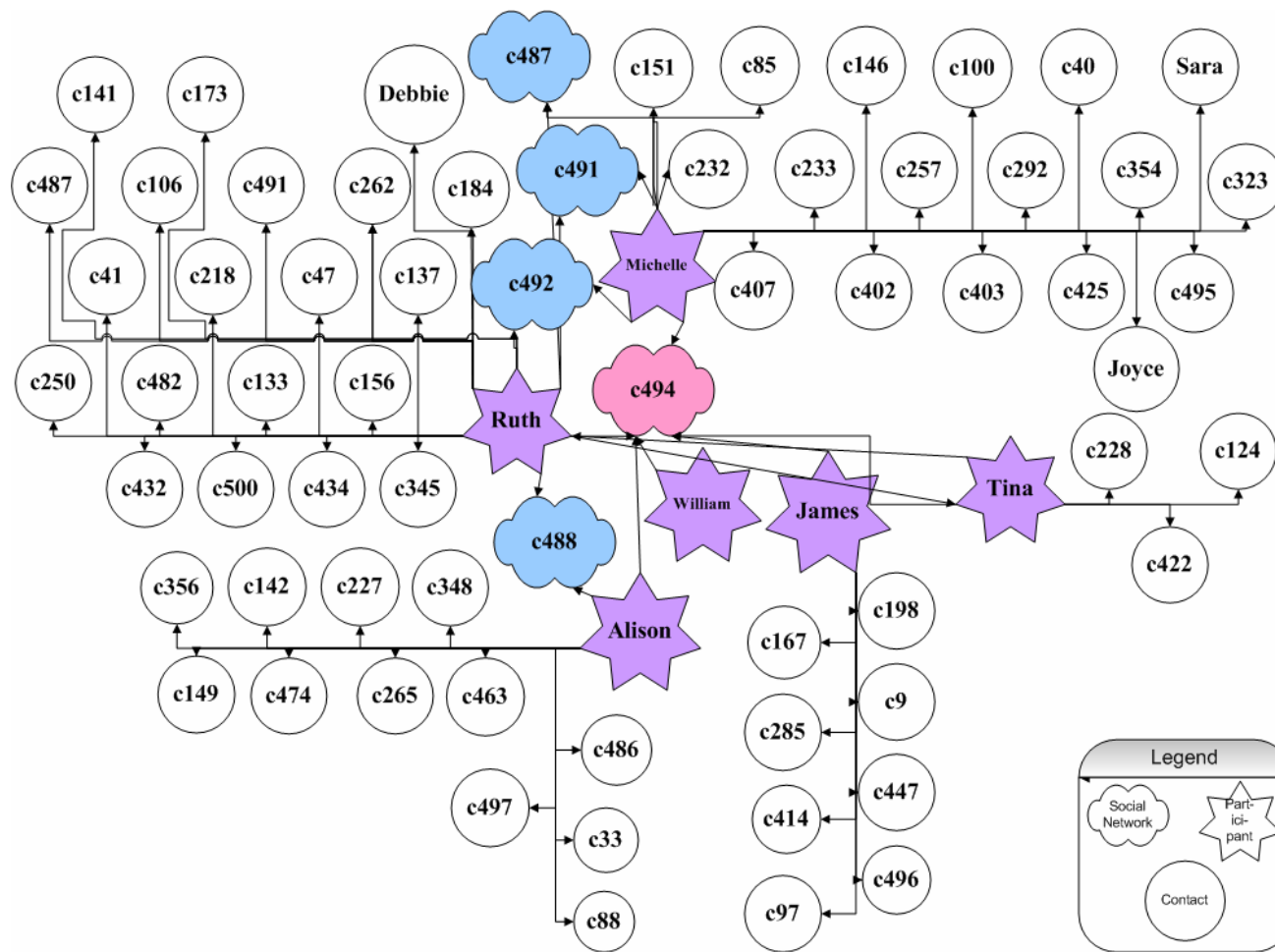
Figure 67: Social Network Model of c491
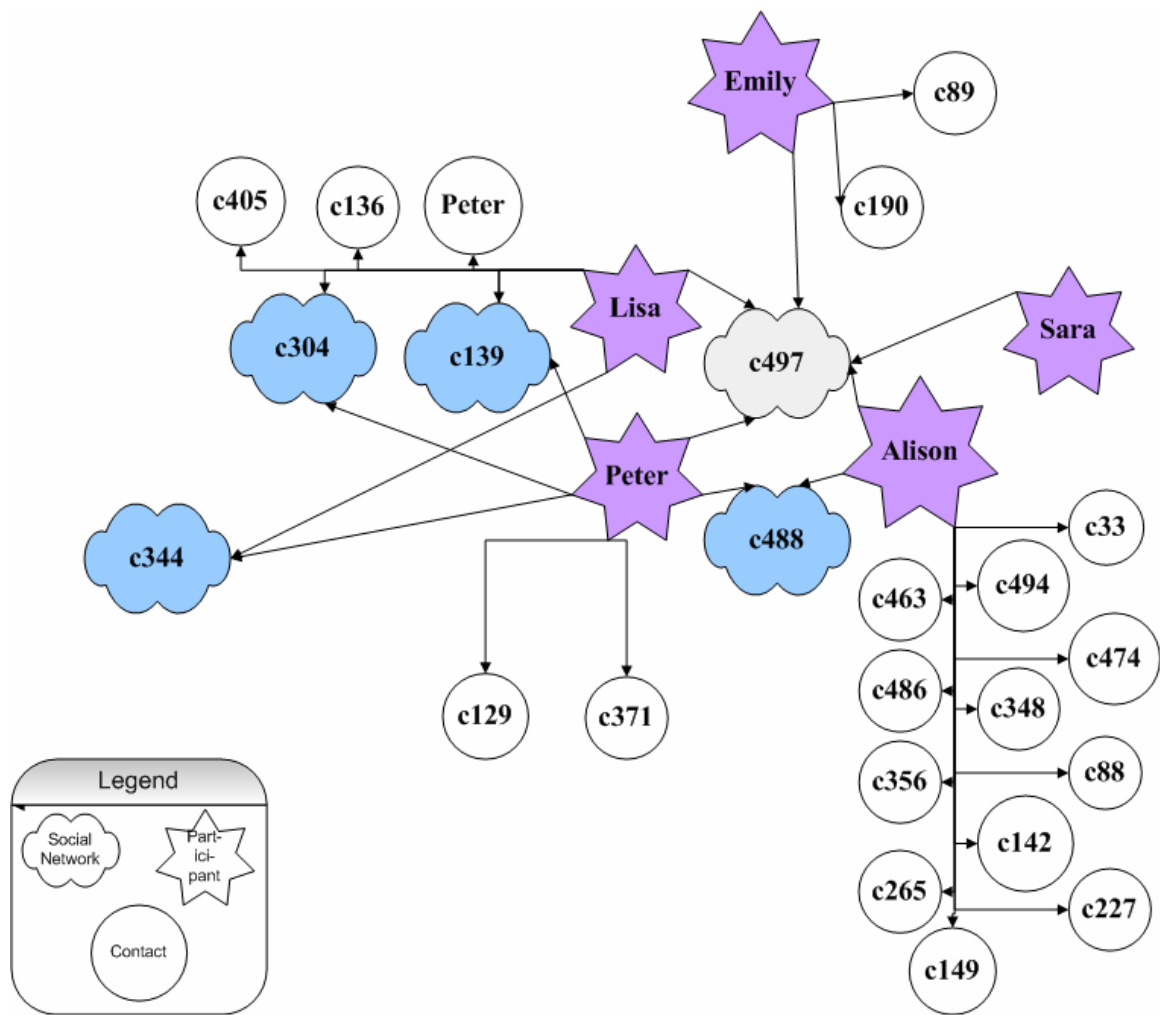
Figure 68: Social Network Model of c492

Figure 69: Social Network Model of c494

Figure 70: Social Network Model of c497

APPENDIX L:

THEMES AND CATEGORIES FOR WHY AND WHY NOT DISCUSS TEACHING

ONLINE

Table 41: Sample Qualitative Data Analysis Themes and Categories for Why Faculty Discuss Teaching Online

Statement - Why Discuss	Core Meanings	Theme	Category
I discuss teaching in general with a lot of different people. Online teaching is a big part of what we do, so it is a big part of our discussions about teaching. Also, I'm a bit more of an expert than some of my colleagues, so people seek out my advice.	- discuss teaching - expert - provide advice	- discuss/ wonder/ get and give/ hear and tell/share/ exchange/ communicate/ talk/ pool/ compare - ideas/ effectiveness/ learn/ opinions/ experiences/ information/new/ training/ strategies/ techniques/ ways/ time management/ resources/ teaching/ learning/ methods/ keep up/ innovations/ increase proficiency - expert - assistance/ advice/ clarify/ review/ evaluating/ help/ get or give/ consult/ inquires/ feedback/ suggestions/ comments/ want/ show/ how to/ desire/ answer/ figure out/ ask/ input/ see/ guided practice	- exchange - ideas - expert - advice
To get others' opinions; To hear about others' experiences; To get information on others' pedagogical approaches; To give other my opinion; To tell others about my experiences; To give information on my pedagogical approaches; To plan modules and modifications.	- get/give opinions - hear/tell experiences - get/give information on pedagogical approaches - plan modules and modifications	- discuss/ wonder/ get and give/ hear and tell/share/ exchange/ communicate/ talk/ pool/ compare - ideas/ effectiveness/ learn/ opinions/ experiences/ information/new/ training/ strategies/ techniques/ ways/ time management/ resources/ teaching/ learning/ methods/ keep up/ innovations/ increase proficiency - pedagogy - course plan/ design/ development/ assessment/ management (large classes/ facilitate)	- exchange - ideas - pedagogy - course design

Statement - Why Discuss	Core Meanings	Theme	Category
I usually discuss teaching online with other faculty members when I want to try something new that I haven't done before...or if I am having a problem with the way I have set things up on my course and need to do it a different way to make the learning environment easier for the student to navigate.	• something new • problem with course • need to do it different way	• ideas/ effectiveness/ learn/ opinions/ experiences/ information/new/ training/ strategies/ techniques/ ways/ time management/ resources/ teaching/ learning/ methods/ keep up/ innovations/ increase proficiency • problem solve/ troubleshoot - challenges/issues • assistance/ advice/ clarify/ review/ evaluating/ help/ get or give/ consult/ inquires/ feedback/ suggestions/ comments/ want/ show/ how to/ desire/ answer/ figure out/ ask/ input/ see/ guided practice	• ideas • problem solve • advice
Sometimes it is for training purposes (to learn tools and procedures) or to plan a class. Sometimes it is to discuss problems with the teaching online process. Sometimes it is about evaluating my work or student work.	• training purposes (to learn tools and procedures) • plan class • discuss problems with teaching online process • evaluating my work or student work	• ideas/ effectiveness/ learn/ opinions/ experiences/ information/new/ training/ strategies/ techniques/ ways/ time management/ resources/ teaching/ learning/ methods/ keep up/ innovations/ increase proficiency • course plan/ design/ development/ assessment/ management (large classes/ facilitate) • problem solve/ troubleshoot - challenges/ issues • assistance/ advice/ clarify/ review/ evaluating/ help/ get or give/ consult/ inquires/ feedback/ suggestions/ comments/ want/ show/ how to/ desire/ answer/ figure out/ ask/ input/ see/ guided practice	• ideas • course design • problem solve • advice • student concerns

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Table 42: Sample Qualitative Data Analysis Themes and Categories for Why Faculty Do Not Discuss Teaching Online

Statement - Why Not Discuss	Core Meanings	Theme	Category
If they don't teach online or I perceive that they aren't interested in pedagogy.	• they don't teach online • they aren't interested in pedagogy	• they don't teach online • they aren't interested in pedagogy	• different teaching experiences • not interested
Do not need to know about pedagogical practices from units outside my own department (ie, best practices), but do need to know technical help issues. So, limit conversations to technical issues, and discuss general pedagogical issues with others not necessarily related to teaching a specific course. So, my scholarship focuses on teaching online and those conversations are about those issues rather than specific courses.	• do not need to know about pedagogical practices from units outside my own department • limit conversations to technical issues • focus on teaching online and those conversations are about those issues rather than specific courses	• do not need to know about pedagogical practices • limit to technical issues • focus on teaching online issues	• not interested • different discussion focus
I'm too busy. Conversion of courses to WebCT can sometimes be a contentious issue during faculty meetings, thereby causing them to drag on for a very long time.	• too busy • conversion of courses to WebCT can sometimes be a contentious issue	• too busy • contentious issue	• time/too busy • creates tension

Statement - Why Not Discuss	Core Meanings	Theme	Category
Some faculty members, often those who are tenured and have been at UCF for a while, are reluctant to talk about online teaching and are not convinced it is a viable teaching method. I love to educate them and convince them otherwise; but I stay clear of the topic if it is going to create tension and problems during the discussion.	• faculty members reluctant to talk about online teaching and are not convinced it is a viable teaching method • stay clear of the topic if it is going to create tension and problems during the discussion	• reluctant to talk about online teaching with faculty not convinced about online teaching • topic creates tension and problems	• different teaching experiences • creates tension
time!!! Every minute spent talking about teaching means one less minute for conducting research, grading papers, etc.	• time	• time	• time/too busy
fear of being viewed as inadequate online instructor	• fear of being viewed as inadequate online instructor	• fear of being viewed as inadequate	• fear of inadequacy
I would probably not call someone who has less experience than myself.	• probably not call someone who has less experience than myself	• not call someone with less	• less experience
I usually try to figure it out myself first.	• try to figure it out myself first	• figure it out myself	• solve own problems

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APPENDIX M:

THEMES AND CATEGORIES ABOUT INFLUENCE OF DISCUSSIONS

Table 43: Sample Qualitative Data Analysis Themes and Categories for How Discussions about Teaching Online Have Influenced

Study Participants

How Influence	Core Meanings	Theme	Category
It has given me hope that this means of instruction can be beneficial even as I struggle to manage the administrative aspects of it and fear that the real teaching is getting lost.	• hope (online) instruction can be beneficial	• beliefs	• beliefs
I learn a lot of techniques, get ideas for assignments and rubrics, and conduct research in my online classes as a result of talking about teaching with others.	• learn techniques • ideas for assignments and rubrics • conduct research in online classes	• teaching • inspires research	• teaching • research
Have considered the pros and cons of using on-line format to teach certain types of courses/content; have a better idea of the type of students that benefit from using this format; has influenced me in considering the types of assignments that are more beneficial to student learning;	• considered pros and cons of on-line to teach some courses/content • better idea of type of students who benefit • consider types of assignments more beneficial to student learning	• teaching • student learning	• teaching • student learning
Mostly in informal assurances by those not involved in the administration of WebCT that it is doable.	• WebCT is doable	• confidence/ support/ camaraderie	• support

How Influence	Core Meanings	Theme	Category
Discussions have sometimes been helpful for me to generate ideas about instructional techniques. They have also been helpful in figuring out the mechanics of WebCT which occasionally drives me crazy (i.e. using the Grade Book).	• instructional techniques • mechanics of WebCT	• teaching • use of technology for teaching	• teaching • use of technology
I think that what really sways my experience of teaching on line is my chair (my bosses) opinion. When we had a chair who felt teaching online was valuable and supported this, then I felt like teaching online was worthwhile for my career. When we had a new chair who was not very supportive of teaching online, I felt like online teaching would work against me. I also personally believe that teaching online provides inferior education compared to face to face regardless of all the rationalizations people make to the contrary. Teaching online sacrifes rigor and quality learning for the sake of convenience and generating more SCHs in a course.	• sways my experience of teaching on line is my chair (my bosses) opinion • believe that teaching online provides inferior education compared to face to face regardless of all the rationalizations people make to the contrary	• chair's opinion; inferior education compared to face to face	• beliefs

Table 44: Sample Qualitative Data Analysis Themes and Categories for How Discussions about Teaching Online Have Not

Influenced Study Participants

No Influence	Core Meanings	Theme	Category
Have had so few discussions about anything of substance.	• few discussions about anything of substance	• no substance to discussion	• no substance
In some ways discussing teaching online with other faculty members has not influenced me much because there seems to be a lot of negativity out there towards online teaching by 'traditional' faculty members.	• seems to be a lot of negativity out there towards online teaching by 'traditional' faculty members.	• other faculty members' negativity about teaching online	• negativity
Because I have been doing online and continuing education for many years and I do not need to be convinced by others. I took my first course on a stand-alone computer at Penn State University in 1973 during a pilot project at the university. I was convinced then that online education was a good idea, but it didn't happen for another 15-20 years.	• have been doing online and continuing education for many years and do not need to be convinced by others	• do not need to be convinced by others	• own philosophy
I rarely discuss teaching online with other UCF faculty.	• rarely discuss teaching online	• rarely discuss teaching online	• rarely discuss
no opportunity	• no opportunity	• no opportunity	• rarely discuss

No Influence	Core Meanings	Theme	Category
I like teaching online, even when I hear people say that they don't. I enjoy both modalities of instruction even though I understand that they are different. I don't believe that one is better than the other. I love the flexibility of online instruction and feel confident I can communicate who I am in an online environment.	• like teaching online • enjoy both modalities of instruction • don't believe that one is better than the other • love the flexibility of online instruction and feel confident I can communicate who I am in an online environment	• like teaching online • enjoy both modalities • don't believe one is better than other • love flexibility of online instruction • feel confident can communicate who I am in online environment	• own philosophy
My chair refuses to alter grades based on bad grammar or spelling; since I take off for bad grammar and spelling, his approach has not changed my mind about how I approach on-line teaching.	• chair refuses to alter grades based on bad grammar or spelling; his approach has not changed my mind about how I approach on-line teaching	• chair's approach has not changed mind about how I approach online teaching	• own philosophy
Teaching online has not been the focus as much as the tools and trouble shooting has been.	• teaching online has not been the focus as much as the tools and trouble shooting has been	• teaching online not focus as much as tools and trouble shooting	• no substance
I am not on the main campus so my contact is limtited. A lot of my information comes from the internet etc.	• not on the main campus so my contact is limited	• not on main campus so contact limited	• rarely discuss

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