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Academic Communities of Engagement and Their Influence on Student Engagement

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A dissertation submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

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ABSTRACT

Academic Communities of Engagement and Their Influence on Student Engagement

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Doctor of Philosophy

Learner engagement is a critical aspect of education. While technology is rapidly developing to act in increasingly personalized, and in some dimensions human, ways, we submit that a human community may uniquely support increased student engagement. This research explored the characteristics and effects of the interactions and relationships that constitute three distinct communities in education and examined their influences on student engagement.

In the format of a multiple-article dissertation I present three articles. The first article reviewed relevant literature about interactions, relationships, and communities in education. It focused specifically on online and blended contexts and their connections to student engagement. Interactions, relationships, and community are linked to one another and support student engagement. The second article surveyed students in a blended college preparation program about the relationships they experienced in their academic communities of engagement with online and in-person instructors and peers, family, friends, etc. and how they influenced students' perceptions of their engagement. The support provided by the in-person community is significantly higher than that provided online ($p < 0.001$). Support also has a significant impact on perceived student engagement ($p < 0.001$). The third article examined the students' supportive academic relationships and their influence on student engagement through semi-structured interviews. Students report more supportive relationships with their in-person communities and higher engagement there.

Supportive interactions, relationships, and community promote higher student engagement. Such connections can be forged online, but in the case of this research were more likely to exist in-person. Supportive communities and the interactions and relationships they encompass should be fostered in learning environments, be they in-person, online, or blended, in order to encourage improved student engagement.

Keywords: learner engagement, higher education, interpersonal relationship, teacher student relationship, interaction, community

ACKNOWLEDGEMENTS

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DESCRIPTION OF RESEARCH AGENDA AND STRUCTURE OF DISSERTATION

This dissertation, "Academic Communities of Engagement and Their Influence on Student Engagement," is written in a journal article format. The format combines traditional dissertation requirements with journal publication formats. The preliminary pages of the dissertation meet requirements for submission to the university.

Article 1: The Role of Interactions, Relationships, and Educational Communities in Student Engagement. The first article reviewed relevant literature about interactions, relationships, and communities in education, specifically online and blended contexts, and their connections to student engagement. Interactions, relationships, and community are linked to one another and support student engagement. The extended literature review will be published as an independent article. I wrote this article with co-authors Dr. Richard E. West, an expert in literature reviews and learning communities, and Dr. Charles R. Graham, an expert in online and blended learning. With their mentorship and input I organized the article, conducted the research and wrote the review.

Article 2: The Impact of Number and Strength of Ties in Academic Communities of Engagement on Perceived Student Engagement: The Case of a Blended Program. The second article focused quantitatively on the relationships that form students' academic communities of engagement with online and in-person instructors and peers, family, friends etc. and how they influenced students' perceptions of their engagement. Each student belonged to an online course, in-person gathering, and friends and family community. The members of these communities did not overlap, though the online course and in-person gathering communities did cover the same content. Through online surveys ($n=340$) I measured participants' communities, support, and perceived engagement. The support provided by the in-person community is

significantly higher than that provided online ($p < 0.001$). Support also has a significant impact on perceived student engagement ($p < 0.001$). I wrote this article with co-authors Dr. Charles R. Graham, an expert in student engagement and online and blended learning, and Dr. Kamal Badar, an expert in social network analysis. With Dr. Graham's mentorship I created the survey, collected and analyzed the data, and wrote the article. Dr. Badar reviewed the article to improve our explanation of the social network analysis and provide insight on further data analysis which I implemented.

Article 3: The Nature of Supportive Academic Relationships and Their Influence on Student Engagement. This article qualitatively examined students' supportive academic relationships and their influence on perceived student engagement. Students reported more supportive relationships with their in-person communities, and higher engagement there. I conducted two sets of 20-45 minute interviews with students who matriculated from the program to a related online university ($n=14$, $n=10$). The first was near the end of the program (to reflect on their supportive relationships) and the second was near the end of their first semester of the online university courses (to report on how their gathering relationships have endured or not and compare their online university experience to their experience in the program). Interview analysis suggests that students generally reported stronger relationships and engagement in-person than online. I wrote this article under the mentorship of Dr. Charles R. Graham an expert in engagement and online and blended learning and with the assistance of fellow graduate student Karen T. Arnesen. With Dr. Graham's mentorship I created the interview protocol and planned the research. I instructed Karen on the interview protocol and data analysis procedures and together we interviewed respondents, analyzed transcripts, and negotiated the final codes and findings. I took final responsibility on the decisions as first author.

There are a few journals I am considering submitting these papers to. These include: *Computers & Education*, which has a 24% acceptance rate and a Google Scholar h5-index of 88; *The Internet and Higher Education*, which has a 22% acceptance rate and a Google Scholar h5-index of 43; and *Distance Education*, which has a 25% acceptance rate and a Google Scholar h5-index of 25.

Article # 1: The Role of Interactions, Relationships, and Educational Communities in Student

Engagement

Kristian J. Spring

Richard E. West

Charles R. Graham

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Abstract

We submit that as online learning expands, and technology develops, a face-to-face, human community may uniquely support increased student engagement. Student engagement is a central tenet in education. This research explored the characteristics of the interactions and relationships that constitute communities in education and examined their influences on student engagement. This paper reviewed the role of interactions, relationships, and community in online and blended education and how they support student engagement.

Keywords: learner engagement, relationship, interaction, community

Student engagement is of particular interest for "those aiming to enhance learning and teaching in higher education" (Trowler, 2010) because of its connection to positive cognitive and affective outcomes (Casuso-Holgado et al., 2013; Harper & Quaye, 2009; Mountford-Zimdars et al., 2015). In recent years online learning has grown and technology has advanced to provide opportunities for enhanced learning experiences at a distance. In light of these developments we suggest that a face-to-face, human community may still encourage improved student engagement in particular ways. In order to explore the possibility that human connections uniquely further student engagement we consider human connections that contribute to the student experience: interactions, relationships, and communities. Student engagement is encouraged by interactions, relationships, and community (Garrison & Arbaugh, 2007; Pianta, Hamre, & Allen, 2012; Zhao & Kuh, 2004). We review the roles and attributes of interactions, relationships, and community in online and blended education and how they support student engagement to better understand the human component of the learning experience.

Student Engagement in Online and Blended Contexts

Cognitive improvements connected to engagement include critical thinking, better grades, and persistence (Carini, Kuh, & Klein, 2006; Trowler, 2010). Affective benefits such as self-esteem, ethical development, and satisfaction have also been linked to engagement (Johnson, Edgar, Shoulders, Graham, & Rucker, 2017; Trowler, 2010). While the importance of engagement is generally accepted, a specific definition of student engagement remains elusive (Sinatra, Heddy, & Lombardi, 2015; Macfarlane & Tomlinson, 2017). Engagement has generally been defined in terms of student behavior, psychological process, and the social atmosphere (Kahu, 2013). Researchers continue to expand the boundaries of engagement literature with explanations and critiques (Järvelä, Veermanis, & Leinonen, 2008; Klemenčič,

2017; Sinatra et al., 2015; Skinner & Pitzer, 2012; Tomlinson, 2017). One definition we are drawn to describes student engagement as the "quantity and quality" of energy exerted in an academic setting (Halverson, 2016; Henrie, Bodily, Manwaring, & Graham, 2015, p. 132). This energy is exerted both cognitively through such markers as "attention and effort" and emotionally via "interest, enjoyment, or satisfaction" (Henrie et al., 2015, p. 132-133; Manwaring, Larsen, Graham, Henrie, & Halverson, 2017). Student engagement has been conceptualized as three categories: affective (e.g., positive feelings about learning experience), behavioral (e.g., participation in learning and activities) and cognitive (e.g., investment in academic work; Le, Cui, & Zhou, 2018; Pilotti, Anderson, Hardy, Murphy, & Vincent, 2017). Each facet has been linked positively to academic achievement (Le et al., 2018).

Affective engagement refers to positive feelings towards a class (Pilotti et al., 2017). It includes emotional reactions like "interest, boredom, happiness, sadness, and anxiety" and has been measured by reactions to the instructor or reactions to or identification with the school itself (Fredricks, Blumenfeld, & Paris, 2004, p. 62). Affective engagement is sometimes called emotional engagement (Le et al., 2018).

Behavioral engagement can be conceptualized in three ways: "positive conduct" like following rules and not being disruptive; involvement, in the form of "effort, persistence, concentration" in classroom tasks; and as participation in "school-related activities" (Fredricks et al., 2004, p. 62). Involvement, such as the quality and quantity of responses to discussion boards, is an especially important measure particularly online where the others are less visible (Pilotti et al., 2017). Behavioral engagement has been connected most highly to academic achievement (Le et al., 2018). This may be because it involves a positive behavior that then supports

academic attainment. It is possible that affective engagement affects behavioral and cognitive engagement, which in turn affect academic achievement (Le et al., 2018).

Cognitive engagement has been described in terms of investment in the course and going "beyond the requirements," and as psychological investment and work beyond the behavioral level (Fredricks et al., 2004, p. 64; Pilotti et al., 2017). It has also been tied to motivation, a desire to learn rather than just perform, and being strategic in learning (Fredricks et al., 2004). Each type of engagement seems to be an important piece of educational experience.

Even after identifying a definition and aspect of student engagement to consider, many questions remain about how to help students engage and how instructors can create a learning environment that supports such engagement. Blended learning gives faculty the opportunity to combine the benefits of engagement found in traditional and online approaches. A traditional, in-person, academic situation often involves students meeting face-to-face with their teachers during a lecture (Smith & Cardaciotto, 2011). While this is an efficient way to reach many students at once it may put engagement at risk (Blood & Neel, 2008). Online learning, in turn, gives students more flexibility and choice in their experience (McBrien, Cheng, & Jones, 2009; Robinson & Hullinger, 2008) but may restrict in-person interaction. Though students in an online class are not able to interact in-person, synchronous, and in some cases video, communication allows for some enhanced interaction (McBrien et al., 2009). In addition to benefiting from the advantages of both online and traditional instruction blended learning can incorporate the particular strategies available where the settings overlap (Northey, Bucic, Chylinski, & Govind, 2015). Northey et al. (2015) added asynchronous social media to a course and found it improved both students' engagement and their final grades. The positive interactions students had in the online portion of the course carried over to the face-to-face

portion. In these ways blended learning can have an advantage over either traditional or online learning when it comes to student engagement.

Student engagement is likely influenced by a wide array of variables (Parsons & Taylor, 2011; Spring, Graham, & Ikahihifo, 2018). We propose that one of the components of the learner experience that can support student engagement is the interactions, relationships, and communities a student participates in with teachers, peers, and other supportive individuals such as parents and neighbors. In this paper we examine how the building blocks of interactions, relationships, and community, especially in online and blended settings, can enhance the learner experience and improve engagement.

Interactions and Student Engagement

Interactions have frequently been associated with constructs that are related to student engagement, as well as directly to student engagement itself (Kuh & Hu, 2001; McBrien et al., 2009). There are a number of educational theories and frameworks that discuss the importance of interaction in learning (Allen, Witt, & Wheeless, 2006; Anderson, 2004; Moore, 1989). These theories all focus on basic interactions, which are an important precursor to and part of relationships, but the theories do not necessarily extend far enough to emotions or connections between people. We submit that these emotions can transform a collection of interactions to a relationship. To understand interactions and their influence on engagement, we need to first understand the different types of interactions (Moore, 1989) and how these are involved in the development of connections between learners and others (Crossley, 2011; Wiener & Mehrabian, 1968).

Types of Interaction

Moore (1989) identified and defined three types of interaction: learner-content, learner-instructor, and learner-learner, all of which support cognitive engagement (Bernard et al., 2009). Moore defined learner-content interaction as the basic element of education in which learners engage intellectually with the subject. Learner-instructor interaction describes students interacting with an expert on their subject. These expert instructors organize, explain, and motivate according to the needs of each learner. They facilitate correct, confident application of the content that the learners studied through learner-content interaction. Learner-learner interaction comes in many forms, such as presentations and discussions, and allows students to develop and test their understanding with one another. Moore identified learner-learner interaction as a learning experience that will stimulate motivation, especially in younger learners. Anderson (2003) emphasized that having multiple interaction types is especially desirable.

Online interactions can be hindered by transactional distance, the psychological space that might cause misunderstandings (Moore, 1993). They can, however, be highly effective. Bernard et al. (2009) compared —student–teacher, student–student, and student–content interactions in a meta–analysis of distance educational research and found that student–student and student–content combinations, as well as student–teacher and student–content combinations, had significant effects on cognitive engagement (Bernard et al., 2009). This suggests that combining interaction with content and interaction with another person is the most effective practice.

In online and blended learning these types of interactions can be conceptualized in terms of "human–technology interaction" (i.e., learner–content interaction) and "human–human interaction" (i.e., learner–instructor and learner–learner interaction, Spring et al., 2018, p. 1491).

We suggest that interacting with another person is inherently different, both in substance and in effect on engagement, than interacting with a piece of technology. Interaction with another person comes with at least the potential for a reciprocity of feeling within the interaction and of an emotional component. While constantly advancing technology can mimic even highly individualized responses technology cannot communicate or feel genuine emotion toward the learner as only another person can. Within these categories it is important to understand what types and qualities of interactions are most beneficial to students.

Teacher Immediacy

Immediacy has been defined as behaviors that improve the "closeness to" and "interaction with" another (Mehrabian, 1968, p. 203; Wiener & Mehrabian, 1968). Teacher immediacy is supported by interactive behaviors that can be both verbal (e.g., humor, names, feedback) or non-verbal (e.g., eye contact, smiling, movement, Allen et al., 2006) and is linked to positive student outcomes relevant to engagement (Al Ghamdi, 2017; Allen et al., 2006; Baker, 2010).

Instructor immediacy in online learning can positively influence online instructor presence or an instructor's "visibility" to students (Baker, 2010, p. 5). In turn, instructor presence in online learning has a significant effect on affective learning, motivation, and cognition, constructs that have been connected to student engagement (Baker, 2010). Using confirmatory factor analysis on data collected from almost 200 university students, Mazer (2012) found that instructor immediacy behavior, like making eye contact and using warm vocal cues, can engage students and thus influence student attention and learning. Certain types of interactions reinforce a connection between students and their instructors, which then encourages student engagement. Many of these behaviors can be accomplished in either a face-to-face or

online setting. However, some behaviors can be difficult when communicating using relatively lean mediums, such as text, and immediacy and presence can be more easily established when communication is mediated with asynchronous or synchronous audio and video (Borup, West, & Graham, 2012; Clark, Strudler, & Grove, 2015).

Immediacy has been linked directly to student learning. In a meta-analysis of eight studies, Allen et al. (2006) found that teacher immediacy improved affective learning, which in turn improved cognitive learning. Although the outcome in terms of cognition is small, though still possibly meaningful over time, improvement in affect is quite large. In a survey of students enrolled in at least one distance education course at a community college, Zapf (2008) found that student perceptions of instructor immediacy positively influenced their reported academic engagement, especially among some demographic groups. The effect was especially high for those with less experience with online courses. Immediacy was also especially important to students earning lower grades, possibly because higher achieving students might draw their engagement from elsewhere while those who were struggling might prefer more connection with the instructor (Zapf, 2008). In this online learning setting, immediacy was especially important for students in need of support.

Al Ghamdi (2017) conducted research on verbal and nonverbal instructor immediacy in distance learning and its effect on student engagement as measured by online participation, communication satisfaction, and affective and cognitive learning. While Al Ghamdi (2017) looked at engagement as a single construct, the measures used in this research covered affective, behavioral, and cognitive elements of engagement. Courses were divided into a treatment group, where lecturers adopted behaviors that are characteristic of high immediacy (e.g., humor and personal experiences, being on a first-name basis with students, praising students), and a control

group, where instructors continued in their usual teaching routines. This research found that improving instructor immediacy can positively affect student–instructor relationships, and that the social aspect of teacher immediacy supported student engagement (Al Ghamdi, 2017). It is possible that, as Al Ghamdi argued, teacher immediacy, which is driven by interactions between teachers and students (Allen et al., 2006), improves the relationships between instructors and students that then, in turn, bolsters student engagement.

Basic interactions in educational settings, conceptualized simply by the actors involved, and specific types of interactions, described in more detail such as humor and eye-contact, are connected to student engagement. Interactions are necessary, but not sufficient to form the relationships that are needed for a strong community. Interactions are the beginnings and foundations of relationships but students require emotional connection to progress further and form relationships and academic communities.

Relationships and Student Engagement

Relationships can be described as a collection of interactions between individuals (Crossley, 2011). We propose that relationships also involve a dimension of meaning and purpose that includes the actors connecting with a bond, a sense of belonging, and empathy. These emotional connections between students and their instructors, peers, and even others such as parents have been found to promote student engagement (Quinlan, 2016). Teacher–student relationships, for example, are "one of the most powerful elements within the learning environment" and are a "major factor" in student engagement (Liberante, 2012, p. 2; Quin, 2017). Learning theories discuss relationship development generally, in an academic context specifically, and in the context of online learning. They have been tied to outcomes related to student engagement as well as to the construct of engagement itself. These theories begin to

describe the emotional links, such as alliance, relatedness, care, or trust, which bring disparate interactions to the level of a relationship.

Alliance

Alliance, a term most common in psychotherapy, is defined as mutual engagement (Flückiger, Del Re, Wampold, Symonds, & Horvath, 2012; Horvath, Del Re, Flückiger, & Symonds, 2011). There may also be several types or facets of alliance such as helping alliance, working alliance, and/or therapeutic alliance (Horvath et al., 2011). Alliance may "bind" the client to the therapist and help the patient to remain in treatment even during difficult phases (Horvath et al., 2011, p. 10). Clients with weak alliance are more likely to leave their psychotherapy (Sharf, Primavera, & Diener, 2010). Similarly, belonging and engagement have been found to lessen dropout rates among both students in K-12 and higher education just as alliance, which involves binding and engagement, helps prevent attrition of clients in psychotherapy (Archambault, Janosz, Fallu, & Pagani, 2009; Derouin, Fritzsche & Salas, 2005; Hughes, 2007).

The concept of alliance has also been applied to educational contexts (Noam & Fiore, 2004). Toste, Heath, and Dallaire (2010) administered surveys to 14 teachers and interviewed 53 students in order to measure working alliance between K-12 teachers and students as well as student performance. They found that teachers' impressions of their alliance predicted their ratings of student performance while students' understanding of their alliance predicted their assessment of their own performance as well the ratings of their teachers. Though this research took place in a K-12 environment, and does not explicitly consider student engagement, it meaningfully extends the concept of alliance to higher education.

In a higher education context, Leighton and Bustos Gómez (2018) endeavored to create a "pedagogical alliance or trust bond" between instructors and their students because "students who trust . . . their instructors . . . show more secure attachment to teachers and engagement with the learning process" (p. 383). They divided 101 students into intervention and control groups and added a three-minute discussion to the routine lesson for the former group. The brief, one-time adjustment was correlated with enhanced trust and well-being among students as well as willingness to report confusing material, especially among students at lower knowledge levels. This research applied alliance to a higher-education setting. It also supported its efficacy in building trust in the educational sphere and the possibility of further improvement with more in-depth pedagogical changes (Leighton & Bustos Gómez, 2018). Connected to the idea of alliance, engagement with others, is the concept of relatedness, or a connection to others.

Relatedness

Relatedness, "the need to feel belongingness and connectedness with others" (Ryan & Deci, 2000, pg. 73) is a main facet of Self-Determination Theory (SDT), which asserts that autonomy, competence, and relatedness promote motivation (Ryan & Deci, 2000). They define intrinsic motivation as "active engagement with tasks that people find interesting and that, in turn, promote growth" (Deci & Ryan, 2008, p. 233). SDT is a "macrotheory of human motivation" (Deci & Ryan, 2008) that applies to basic human personalities but has also been extended to numerous contexts including education, both for children and adults. In an educational context we explore relatedness between students and their teachers, peers, and parents (Furrer & Skinner, 2003).

Ruzek et al. (2016) found that relatedness among middle school students supported improvements throughout the school year. Teacher emotional support early in the school year

was connected to student engagement and motivation in the middle of the year. In another study, K-12 students who started the year with higher relatedness overall were more engaged to begin with, but also showed even more gains in engagement throughout the year, while those who began with low relatedness tended to decrease in engagement as the year went on (Furrer & Skinner, 2003).

The different roles of those who are related to the learner are significant. Furrer and Skinner (2003) found as part of a longitudinal survey study on K-12 student motivation (*n*=641) that relatedness with teachers, peers, and parents had unique effects on student motivation but all worked together to support student engagement. Relatedness to peers was the least salient category. If students had high relatedness to teachers and parents, then a low relatedness to peers did not negatively affect their academic engagement. Emotional engagement suffered, however, in students who did not feel related to peers, regardless of their connection to teachers and parents. Relatedness to parents seemed to both model for students how to form relationships with teachers and peers and to prime students for classroom motivation (Furrer & Skinner, 2003).

Focusing on student–teacher relatedness, Furrer and Skinner (2003) found through regression and cumulative risk analyses that students' perceptions of the teachers' feelings towards them affected the way that students felt in class. Students who felt that teachers appreciated them reported that they felt comfortable and thought activities in class were fun while those who thought that teachers ignored them felt angry and bored during activities. Learning is a relational experience supported by several relationships, and "relatedness plays an integral role in children's motivational development" (Furrer & Skinner, 2003, p. 160.) These

findings affirm that student–teacher, student–peer, and student–parent relationships influence engagement and the stronger relationships students have the better off they will be.

In a higher-education context, Groves, Sellars, Smith, and Barber (2015) found through a survey of almost 100 university students that a large majority of students (94% in one cohort and 88% in the other) considered feeling that they belonged at the university to be important or very important to them. Groves et al. (2015) discovered through four focus groups with university students that "relationships [with their teachers] were very important in encouraging student engagement" (p. 32). While this topic may be more traditionally addressed in younger individuals it is also important for adults. Care is a topic in a similar position.

Care

Care is a term generally used to describe relationships between instructors and K-12 students. Noddings (2013) described care as feeling what another person feels so acutely that you are motivated to act. Borup, Graham, and Velasquez (2013) found through interviews with high school instructors that online high school teachers were able to create caring relationships with students through "a high level of dialogue with students, engaging in acts of confirmation that help students to recognize their better self, modeling to students what it means to care, and providing students with opportunities to care for their peers" (p. 196). By caring for their students teachers also encouraged students to care for others and receive care from their peers. Personal contact and time available for dialogue seemed to contribute to better interactions between teachers and students (Borup et al., 2013). Care may be part of the bridge that enhances interactions and moves them toward relationships and while it lends itself toward K-12 students, it could also be significant for adult learners. Care has some similarities with the concept of trust which we see explored in corporate and higher education settings.

Trust

While trust is generally accepted as an important component of social organizations it is a complicated concept that is difficult to define (Hosmer, 1995). PytlikZillig and Kimbrough (2016) reviewed literature reviews about conceptualizations of trust from several disciplines. Most of the authors agreed that trust must involve two actors who depend on one another and experience some level of risk and vulnerability. Agency and intention must also exist, in that the trustor must willingly decide to place trust in the trustee. Some argue that trust must be reciprocal (e.g., Li, 2015) while others counter that reciprocity is not necessary (e.g., Schoorman, Wood, & Breuer, 2015). There are similar discussions around risk and intention in a trusting relationship. PytlikZillig and Kimbrough (2016) concluded that there was still no agreed-upon definition of trust and that trust researchers may be served by working to create a set of definitions to work from. In another analysis of literature on trust in various disciplines, Tschannen-Moran and Hoy (2000) compiled diverse definitions and facets of trust. Several of these were connected to a relationship, such as willingness, vulnerability, benevolence, reliability, honesty, and openness. While researches have not come to a strong consensus on the precise definition of trust, the literature does support its usefulness and its relation to emotional connections.

Trust is seen as an important issue to support K-12 students and their achievement (Bryk & Schneider, 2002) and has been described as a link between students and their teachers. In a survey of elementary school students, Murray (2009) found that student–parent and student–teacher relationships significantly correlated with students' engagement at school. Student–teacher relationships explained almost half of the variance in student engagement after controlling for other variables. In this context, trust among all stakeholders, administrators,

teachers, parents, and students seemed to contribute to an enhanced learner experience (Murray, 2009).

In a higher education context, the stakeholders are different but trust remains an important element for students. Şad and Özer (2014) asked university students to record why they did not participate in lessons and found that, among these students, personal reasons such as having a negative attitude toward the course, department, or instructor, and being afraid of making mistakes were the most commonly reported. Instructor-related reasons, such as not building rapport and being a poor teacher, were the next most common reasons that students gave for not participating and were tied to the personal reasons (Şad & Özer, 2014). These instructor-related explanations can be characterized as obstacles related to trust. When students did not trust professors as people they also did not find them credible teachers, which in turn influenced their engagement, as manifested by class participation. Özer, Atik, Sad, and Kiş (2015) likewise found in a survey of university students that trust in a professor was strongly correlated with students' engagement. While trust is a slippery concept, it is an important one that needs to be supported for student success.

Relationships are built on accumulated interactions between individuals (Crossley, 2011). They are characterized by a number of qualities, many emotional in nature, and have the potential to influence student engagement (Horvath et al., 2011; Noddings, 2013; Ryan & Deci, 2000). Similarly, communities are composed of multiple relationships and have their own place in supporting engagement.

Community and Student Engagement

Interactions between students and their peers and teachers are connected to student engagement. Some interactions, perhaps especially those infused with emotion or meaning,

develop into relationships (Crossley, 2011). Communities are then groupings of multiple

relationships and have their own role in bolstering engagement. Communities are also an

established component of social sciences and learning theory (Garrison, Anderson, & Archer,

2010; Rovai, 2002; Scott & Marshall, n.d.).

Sense of Community

McMillan and Chavis (1986) required their definition of community to encompass four

criteria: (a) Membership—belonging and relatedness; (b) Influence—mattering to the group; (c)

Reinforcement-—having needs met; and (d) Emotional connection—commitment that members

will share time and experiences together. While community has often been described in spatial

terms, Rovai (2002) argued that a sense of community among learners is characterized by spirit,

trust, interaction, and shared expectations and goals. Distance courses can be designed in a way

that supports this sense of community (Rovai, 2002). In applying the basic concept of

community to an educational context, Rovai and Jordan (2004) found higher measures of

connectedness in a blended course than either a traditional or fully online course. They proposed

that a feeling of isolation in an online course and a few students' dominating traditional in-class

discussions while others are left out may contribute to this phenomenon. Other theories apply

the theory of community to broad contexts of learning.

Communities of Practice

Communities of practice encompass people who share the same skills or profession.

However, Cox (2005) explained that both the terms *community* and *practice* are only loosely

defined. This makes an understanding more difficult to pin down but also sufficiently flexible to

stretch to new dimensions and endure.

In 1991, Lave and Wenger proposed Situated Learning theory. They argued that learning involves the entire person rather than specific activities and that evolving identity and becoming a member of the community are necessary parts of the learning process. New members must begin on the periphery of a community and through legitimate peripheral participation move from the fringes toward the center of said community. During this process learners will also develop their identity such that they eventually become capable of initiating other new members. In this way learning is not merely acquiring knowledge but changing who one is and becoming part of a new community.

Wenger (1998) was the first to specifically define the boundaries about what one type of community is like when centered around practice, activity, and work. Wenger described a community of practice as a community whose members are connected by "what they do together . . . and what they have learned through their mutual engagement in these activities" (p. 2). Practice is the defining variable, rather than location or interest. Therefore, a community must have more in common than meeting together. Conversely, a community of practice does not necessarily require physical proximity. Rather Wenger draws the following boundaries around a community of practice:

- Focus—A "joint enterprise" (p. 2) that those in the group can constantly evolve and must always mutually understand

- Function—The relationships of "mutual engagement" (p. 2)

- Production— "shared repertoire" (p. 2) of resources be they tactile or not, developed during the community's lifetime.

In their 2002 book, Wenger, McDermott, and Snyder clarified and simplified Wenger's earlier definition of a community of practice. Groups need only be interested in the same thing

not necessarily working on or producing anything (Cox, 2005). Because of the ubiquity of distance education and easy access to technology, many communities of practice are now hosted online.

Hou (2015) conducted an ethnography of an online community of practice consisting of student teachers in a Chinese tertiary institution. This research found that online communication provided time and opportunity for participants to reflect on the support and encouragement that those in their community provided as well as appreciating their own contribution to the community. When reflecting on their experience, students remarked on emotional connection, a diverse community, and role models as important to their community of practice. Hou (2015) discovered that the students valued genuine care from the others in their community and expressed their impression that their experience would not have been as positive without the community support. Connecting emotionally was as important for them as being supported professionally. When students felt like they were receiving something from the community, they felt it was worthwhile. Students' attitude proved to be important to their experiences. They participated voluntarily and therefore were more willing to share with one another. Even though students were not required to interact, they felt socially obligated to contribute to the group (Hou, 2015). This perceived pressure and accountability to their fellow students instead of a teacher or grade encouraged students to participate more fully. Other theories apply the concept of community not only to learning in general but directly to formal education.

Community of Inquiry

The Community of inquiry (COI) model applies the concept of community to an educational setting. Garrison and Arbaugh (2007) conceptualized the COI model as teaching, cognitive, and social presence overlapping and working together to create the educational

experience. Teaching presence is experienced by teachers as they organize and direct students in their cognitive and social presence. Cognitive presence focuses on the academic aspect of the learning experience, especially a student's critical thinking. Social presence is a central part of the COI model and describes a student's ability to share his or her real self in mediated communication. Social interactions, such as individuals expressing themselves, communication, and working as a group, are the main components of social presence (Garrison & Arbaugh, 2007). This theory, however, is most concerned with interactions and exchanges. While interactions are necessary, they do not fully describe relationships of community involving emotional connections.

Social presence may work best when in synergy with the other aspects of the COI framework. Armellini and De Stefani (2015) studied the roles of each type of presence in a blended professional development course for English teachers. They collected and analyzed the online exchanges between tutors and teachers in the course. Their findings indicate that teaching presence and cognitive presence have become social and that social interactions are weaker when not combined with another purpose. Armellini and De Stefani (2015) suggested a change to the COI model that would place social presence in a more central position and present new areas of overlap. Their framework, which makes social presence more central, describes the components in terms of exchanges, or basic interactions without an element of connection. The definition of teaching presence is more emotionally limited. It is focused on delivering information in a well-designed and understandable way and facilitating discourse within the class (Garrison & Arbaugh, 2007). Other community research extends this foundational understanding of educational communities to explore types and characteristics of these communities.

Learning Communities

West and Williams (2017) argued that learning communities have "substantial advantages" (p. 2) that would benefit teachers, administrators, designers, and researchers who understand how to foster them. For example, learning communities have been linked to improved student engagement (Zhao & Kuh, 2004). West and Williams (2017) also noted that there is significant disagreement in the literature about the definition of a learning community. Challenges in knowing if a community exists and is effective, make it difficult to implement and improve them. While "everyone approves of [community] . . . beneath the superficial agreement is a vast substratum of disagreement and confusion" (Strike, 2004, p. 217). West and Williams (2017) focused on the boundaries that can be drawn around the definition of a learning community: access, relationships, vision, and function. A single community can be defined by one or multiple boundaries.

Communities defined by access can refer to those with a space, physical or virtual, that only some enter. Community can exist at a distance (Rovai, 2002) or in a blended setting (Rovai & Jordan, 2004). Relationships that bind a community have many dimensions including belonging, interdependence, trust, and shared faith (West & Williams, 2017). Members may be connected or bound emotionally rather than by shared space. Shared vision is a less commonly used boundary which West and Williams (2017) described as "thinking" rather than "feeling" that one is part of a community (p. 13). Finally communities bounded by function are defined by members' actions (West & Williams, 2017). Communities take many forms and have the ability to support student learning and engagement in unique ways.

Conclusions and Future Research

Student engagement is connected to many positive cognitive and affective outcomes (Casuso-Holgado et al., 2013; Harper & Quaye, 2009; Mountford-Zimdars et al., 2015). While engagement is commonly understood in the affective, behavioral, and cognitive domains, only the behavioral is clearly perceptible (Fredricks et al., 2004). Much of engagement is something of an invisible, internal, force behind the success of a learning experience. Those measuring and defining human connections face a similar problem. It is fairly simple to observe and measure interactions, especially on the level of quantity, and thence much attention is focused there. Research on interactions, however, tends to focus at a narrower, transactional, level. Interactions can be understood on a purely behavioral level but can also be overlaid with a component of quality in order to explore them more deeply.

An interaction does not have to be reciprocal or involve any emotion. For example, a learner can interact with content, though of course the content cannot truly interact back (Moore, 1993). Siemens (2014) suggested in his theory of connectivism that students can develop a relationship with content in the same way they can with another person. Such positions lead easily to the conclusion that a computer or robot, incapable of a human relationship, could be as effective as a human instructor. This is a reasonable conclusion if interactions are purely transactional and do not go deeper to an emotional or human level. However, this conception of interaction does not lend itself to an explanation of a more meaningful, human relationship.

Interactions may be more heavily studied partially because they are more efficiently observed and measured. It is important to use quantitative measures to access a larger view of interactions in the educational experience but there are limitations in how much such data can tell us. Relationships are more difficult to capture especially when attempting to understand

qualities such as emotional connection, care, and trust. Relationships are touted as central to the teaching and learning enterprise, but the term is commonly conflated with interactions. A visible, behavioral, measurable interaction may imply the presence of a relationship, or at least the possibility of one, but it does not speak to the quality of connection. Some research has begun to explore the deeper, emotional, components of relationships in education and reveals that they do influence engagement (Ruzek et al., 2016; Toste, Heath, & Dallaire, 2010). In order to have a relationship there must be interactions between two actors but interactions are not sufficient on their own. Relationships can be described as a combination of interactions infused with an emotional component such as trust or care (Noddings, 2013; Tschannen-Moran and Hoy, 2000). Therefore when measuring interactions in education we are likely to inadvertently capture relationships that are built on those interactions and confuse our understanding of the emotional components. In order to improve the educational experience we must better understand the unseen aspects of both engagement and the human connections that can support it.

The rise of robot tutors provides some intriguing ways to explore transactional interactions without the possibility of an emotion-laden human relationship. Kennedy, Baxter, Senft, and Belpaeme (2016) found that when robots programed for social behavior and human tutors followed the same script students learned more with the human tutors. One issue arose where a student who understood the material but not the directions asked for clarification. The human tutor was not allowed to respond, as the robot would not have been able to, though of course he could have. In another study students who learned from an embodied robot rather than learning the same information without the robot learned more, but when the robot behaved socially the students learned less. The authors suggested that this may be because the robot's

behavior might have distracted the students (Kennedy, Baxter, & Belpaeme, 2015). We believe there is a fundamental difference between the interaction one can have with a machine and the relationship one can have with a person. We instinctively understand that with a mechanical tutor there is no possibility for real reciprocity or a shared emotional experience.

There is some evidence that different outcomes are produced based on fidelity of interactions even between humans. In one study girls were stressed and then allowed to interact with their mothers (Seltzer, Zeigler, & Pollak, 2010). Girls who had physical contact with their mothers calmed down more quickly than those who were only allowed to speak on the phone. A follow-up study included a treatment where girls were able to instant message their mothers. These girls had the same cortisol levels of girls who did not interact with their mothers at all (Seltzer, Prososki, Ziegler, & Pollak, 2012). This suggests that a fidelity scale may exist, starting with the strongest effects at physical contact and ending with negligible outcomes with text only contacts (Graham, 2006). Fidelity might also be affected by the primary form of a relationship. Sharabi and Margalit (2011) found that adolescents with learning disabilities were less lonely when their online communication supported face-to-face relationships but lonelier when it was focused on virtual friends. Replicating human relationships with even high-fidelity computer-based counterparts will prove a difficult, nuanced, task and may be fundamentally impossible.

While people are increasingly more comfortable interacting with machines, the ubiquitous nature of technology in modern society may even motivate and help people to seek out more meaningful human relationships. Given so many technological advances, it is important to further explore the valuable components of a relationship with another human being. As we seek to further explore relationships in education we wonder, what can another person bring that is unique, that is not accessible with a technological substitute? How does

engaging with another person differ from engaging with static materials or even dynamic computer programs? As journalist David Brooks asked, "What are the activities that we humans, driven by our deepest nature or by the realities of daily life, will simply insist be performed by other humans?" We query more specifically, if education is one of those activities where "people eventually want their souls stirred" (Brooks, 2015, p. 1).

Relationships are distinct from the interactions that compose them. We need to delve more deeply and move beyond the interaction level, especially in online learning where we can easily tally up behaviors. However, there are also interactions that are rich in emotional connection with someone who one knows, trusts, values, and respects. These are of much more value than an interaction with someone a learner has no real connection to. Communities are then composed of multiple individuals who have relationships with one another. They unite these relationships, direct them toward a common purpose, and make them even more influential (Wenger, 1998). Interactions form the basis of relationships and relationships in turn create community (Crossley, 2011; Scott & Marshall, n.d.). Each of these elements support engagement on their own and do so even more strongly when they are combined (see Figure 1.1). We must learn how to advance interactions to relationships, and relationships to communities, in order to more fully support student engagement.
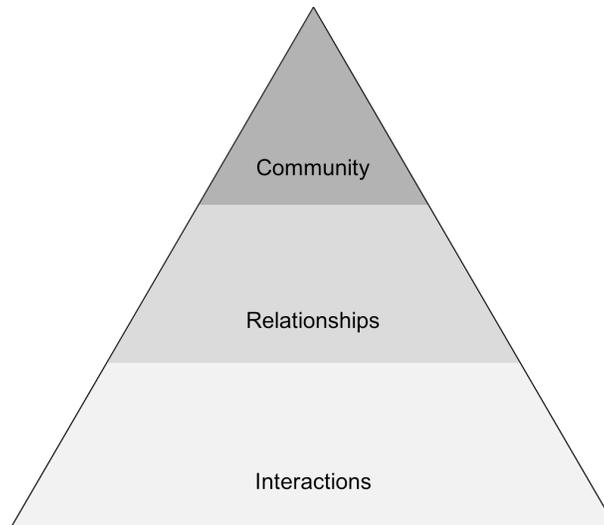
Figure 1.1. Interactions, relationships, and community build upon one another and overlap.

Future research should examine ways to build interactions, relationships, and community and how they can work in combination to promote student engagement. It should also look at ways to convert interactions to relationships and relationships to communities in order to more effectively support engagement. This research should particularly examine the emotional components of each of these constructs and how emotion influences engagement. More research about interactions, relationships, and community is needed in higher education contexts, as the emotional component of adult learning is underexplored. Such research is necessary in all contexts but especially in online and blended situations as they become more common contexts for education.

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Article # 2: The Impact of Number and Strength of Ties in Academic Communities of

Engagement on Perceived Student Engagement: The Case of a Blended Program

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Abstract

We suggest that an in-person, human community may support increased student engagement in unique ways. Learner engagement is a topic of great concern in education. This research explored the characteristics of the relationships that constitute communities in education and examined their influences on student engagement. We found a significant difference between the number (ego's degree) and average tie strength of supportive relationships between teachers and peers in online and in-person learning communities. Further, these relationships significantly influence student engagement in their online and in-person learning contexts.

Keywords: learner engagement, community, ego/ego-centric-network, ego's degree, average tie strength

Engagement in learning has been linked to many positive outcomes (Casuso-Holgado et al., 2013; Harper & Quaye, 2009; Mountford-Zimdars et al., 2015). Student engagement is supported by the interactions, relationships, and community that are part of a learner's educational experience (Garrison & Arbaugh, 2007; Pianta, Hamre, & Allen, 2012; Zhao & Kuh, 2004). Interactions can be time-consuming and difficult to orchestrate and the relationships and community that may be built on them are even more complex, especially in an online or blended environment. In order to ascribe appropriate attention and importance to the ambitious task of fostering interactions, relationships, and community learning, we must understand their effects. It is crucial to evaluate in more concrete terms how human connections may differ between in-person and online experiences and to what extent these differences influence engagement. To this end, this research examined the number and strength of the relationships that constitute communities in education and explored their influences on student engagement.

Introduction and Literature Review

Engagement is one component of student success and persistence (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008; Tinto, 2006). Issues of persistence are especially important in vulnerable, non-traditional student populations (Allen et al. 2018; Kuh et al., 2008). Underserved and at-risk students need support even more than the average learner and may benefit especially from supportive relationships and community (Farr-Wharton, Charles, Keast, Woolcott, & Chamberlain, 2018; Stone & O'Shea, 2019).

The context that serves as our research context is a low-cost program that helps many at-risk, non-traditional learners to begin or return to higher education. The cost of tuition is adjusted based on location and in most places costs less than the standard $71/per credit fee in the United States. This low cost continues to apply as students matriculate into the fully online

university to receive an accredited certificate, associate and/or bachelor's degree. The goal of the program is to provide underserved populations with access to affordable higher education, enrichment, and skills with flexibility for adults with other responsibilities. To both maintain flexibility and provide support, students enroll in one online course each semester and meet weekly with a local *gathering* of other students to learn together, teach each other, and offer support. With this audience of learners in mind, we focus on how the relationships that students may form in their online course and in-person gathering can support their engagement in learning.

There is yet no single, accepted definition of engagement. Researchers continue to build upon the literature with nuanced explanations of the concept (Järvelä, Veermanis, & Leinonen, 2008; Sinatra, Heddy, & Lombardi, 2015; Skinner & Pitzer, 2012). We suggest for this project that engagement can be defined as the "quantity and quality" of energy exerted (Halverson, 2016; Henrie, Bodily, Manwaring, & Graham, 2015, p. 132). Energy can be exerted both cognitively through indicators like "attention and effort" and emotionally by "interest, enjoyment, or satisfaction" (Henrie et al., 2015, p. 132-133; Manwaring, Larsen, Graham, Henrie, & Halverson 2017). Student engagement has been understood in three categories: cognitive, affective, and behavioral (Le, Cui, & Zhou, 2018). We focus on cognitive (e.g. investment in academic work) and affective (feelings about learning experience) engagement in this project (Pilotti, Anderson, Hardy, Murphy, & Vincent, 2017).

Interactions between students and their instructors, peers, and content are an important and well researched part of education (Moore, 1989). The Community of Inquiry model, especially the dimensions of *social presence* and *teaching presence,* support the importance of human interactions in learning. However, they also focus in practice on the transactional,

quantitative aspects (Garrison & Arbaugh, 2007). We see a difference between interactions—which are more shallow, transactional, and quantitative—and relationships—which are deeper, more meaningful, and qualitative. Pianta, Hamre, and Allen (2012) asserted that teacher–student relationships support student engagement. They measured relationships, however, based on interactions. While we agree that interactions are an important piece that is necessary for relationships, we disagree that there can be a direct comparison. Interactions, in our estimation, must be infused with emotion and connection to support a relationship. While interactions and relationships may both support engagement, we submit that they need to be further examined as separate variables.

As interactions can build to a relationship, we see a community as a group of relationships, some more deep, meaningful, and supportive than others. In an educational setting, Rovai and Jordan (2004) argued that a sense of community among learners is characterized by spirit, trust, interaction, and shared expectations and goals. Learning communities of various kinds have been found to support general student success and specifically student engagement (Zhao & Kuh, 2004).

The Adolescent Community of Engagement (ACE) framework encompasses supportive people (parents) outside of the school-based learning community (Borup, West, Graham, & Davies, 2014). In this research we explored academic communities of engagement in a higher education context focused on adult learners. We studied whether other supportive persons, such as other family members, friends, and community members, could contribute to the role that parents normally play in supporting the student's academic experience. Additionally, with the rapid growth of learning environments that blend online and in-person modalities (Dziuban, Graham, Moskal, Norberg, & Sicilia, 2018; Lewis & Parsad, 2008; Means, Toyama, Murphy,

Bakia, & Jones, 2010) we also provided provisions for understanding both local, in-person communities and online communities of instructors and peers that support a student's academic engagement. This study compared and contrasted both the number and average tie strength of student relationships within distinct online and in-person support communities.

We posit that student engagement in blended and online learning environments can be supported uniquely by the online course, in-person gathering and by friends and family communities, which are comprised of many individuals in specific roles. In Figure 2, we show how we conceptualized different communities and people in individual roles filling the three major supportive roles in the ACE framework (Borup et al., 2014). We suggest that support from each of these communities promotes student engagement but a more robust combination of communities would be even more effective. In this article we propose to better understand students' experiences with their academic communities of engagement and the effects of these communities and the relationships that comprise them on student engagement.
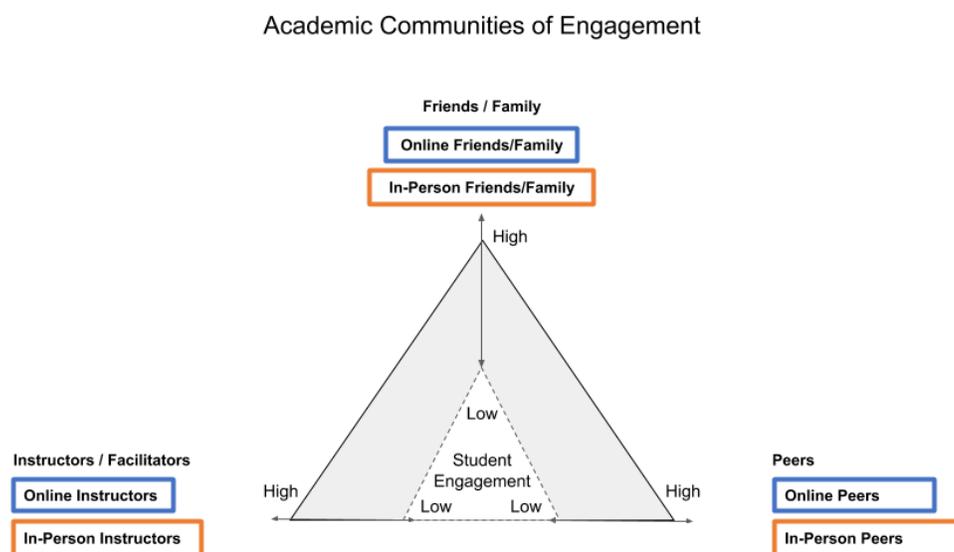
Figure 2.1. Different academic communities of engagement in the student experience.

Method

This article sought to better understand and compare the level of support provided to students in their academic communities of engagement (see Figure 2.2). This was done by identifying an ego-centric network for each student surveyed from a blended college preparation program. The supportive networks included an online course community, an in-person gathering community, and a community of friends and family. An ego-centric network was used to understand the ties surrounding a particular individual or ego, in this case the learner. It was concerned only with ties to the ego (learner) and excluded individuals not connected to the ego as well as any ties between individuals that did not involve the ego.

Each individual enrolled in the program was assigned an online course and in-person gathering, which included peers and instructors/facilitators that had the potential to provide support throughout the experience. Students may have also drawn upon a self-organized community of friends and family during this time. These students were involved in a combination of online and in-person learning experiences and communities that provided an opportunity for comparing the relationships between learners and their peers and instructors in parallel contexts.

In order to explore this issue, we asked two guiding questions:

1. How does perceived student engagement and the number (ego's degree) and average strength of supportive ties compare between the online course and in-person gathering communities?

   H1: Perceived student engagement, ego's degree, and average strength of supportive ties will be significantly different between the online course and in-person gathering communities.

2. How does the number (ego's degree) and average strength of supportive ties affect student's perceived engagement?

    H2: Ego's degree and average strength of supportive ties will significantly predict perceived student engagement.

Research Context

The program examined here provided an interesting context to explore academic communities of engagement in online and in-person gathering settings (see Figure 2). Students participated in a year-long, blended experience that combined online courses with weekly in-person gatherings where learners met, formed relationships, and helped each other with learning the content they covered in their online courses. This program was geared toward non-traditional adult learners of all ages who had not been able to access higher-education through usual routes. The program provided students with guidance and experiences to prepare them for a university education and online learning.
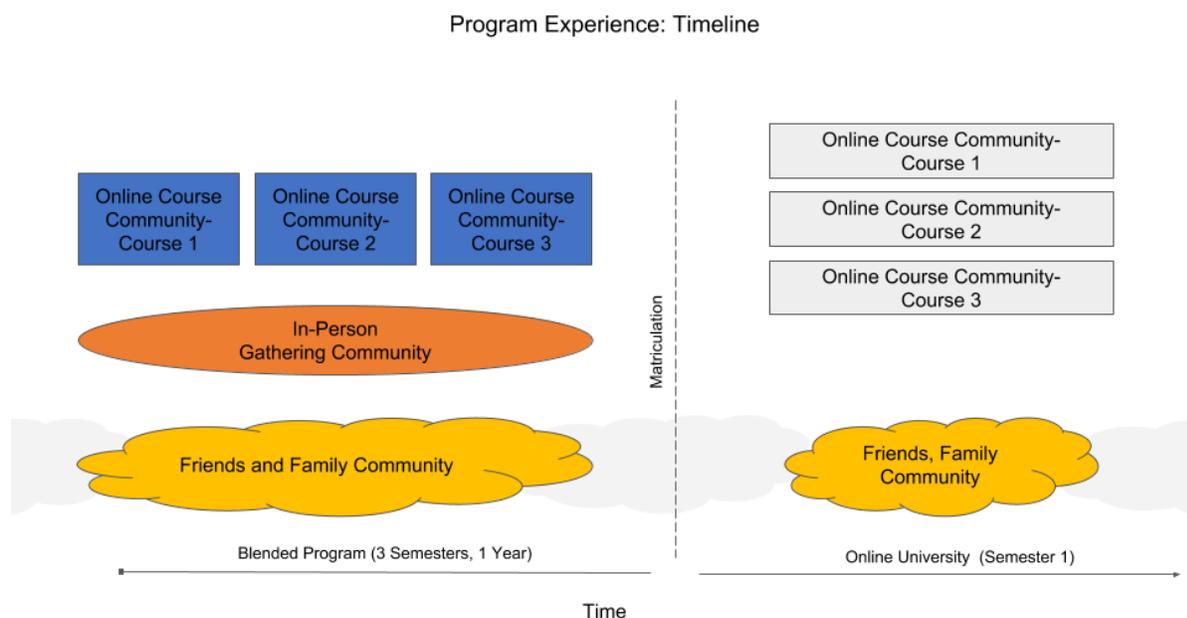
Figure 2.2. Program Experience: Timeline.

As shown in Figure 3, learners were organized into gatherings based on age and geographic region. Each gathering was facilitated by two volunteers whose role was to organize the meetings and encourage and care for students. These facilitators were not subject matter experts and were not trained to teach but were rather prepared to facilitate meetings and support the students. Each week one student took a turn teaching the lesson and leading the discussion. Students helped one another with academic assignments that correspond to their online courses.

Students were placed randomly in sections of one online course (English, Math, or Life Skills) each semester. These were led by qualified teachers. Everyone in a given gathering studied the same topic in their online course at any given time. Some may have had peers from their gathering groups in their online class purely by chance.

During this time, many students also relied on an informal community of friends, family, and others for emotional and academic support. After completing the program, students with acceptable grades were able to matriculate into an online university program and their educational experience transitioned to a fully online model. While students continued to have an online community in each of their courses and their informal community of family and friends, once they matriculated into the online program the in-person gathering ended.

Data Collection

This data was collected through an online survey administered to each student in their last semester of the program ($N=\sim700$, $n=340$). Before administering the survey we consulted with an expert on social network analyses to include appropriate questions and then tested and talked through items with several individuals to ascertain clarity and understanding. Students did not receive credit or any penalty for taking or not taking our survey. Learners accessed the survey online and were able to access it on their own, outside of the gathering and away from their

peers. This removed the possibility of students seeing one another's answers or being influenced by being in the room with their fellow students or facilitators as they took the survey.

The survey consisted of questions about student impressions on two topics: the relationships (emotional and academic) in the communities and their perceived engagement. To compile an ego-centric social network of the most supportive community members for each student, respondents were asked to list (by first name, last name, or initials) those people (maximum 5 in each community) with whom they have worked most closely within the program among peers in the online course and in-person gathering groups, as well as friends and family outside of the program. Each student was provided a space for their in-person gathering peers (maximum 5), online course peers (maximum 5) and other supportive individuals, such as friends and family members (maximum 5).

They were also asked to rate their two gathering facilitators and current online teacher. For each individual listed (maximum 18 - each represented by a circle in Figure 2.3) they were then asked to rate the level of support they felt from each individual. Each student (ego) was asked to list individuals who provided *emotional support* (facilitating, caring, and motivating) and *academic support* (providing instruction and offering assignment help) on a scale from 1 to 6 (labeled *none* to *high*, adapted from Borup et al., 2014 & Oviatt, Borup, Graham, & Davies, 2016). These measures were chosen for their applicability to adult learning, this context, and because motivating, providing instruction, and offering assignment help were the three measures that applied to teachers (instructors/facilitators in this context), peers, and parents (friends/family in this context) in the ACE framework. Nurturing was a role assigned to teachers and parents in the ACE framework (Borup et al., 2014). We have extended this role to peers and re-labeled it "caring" for the adult context. Moore (1995) lists caring as one of the characteristics a good

local coordinator supporting distance education and says that a coordinator must care for students' "emotional comfort" and "academic success" (p. 5).
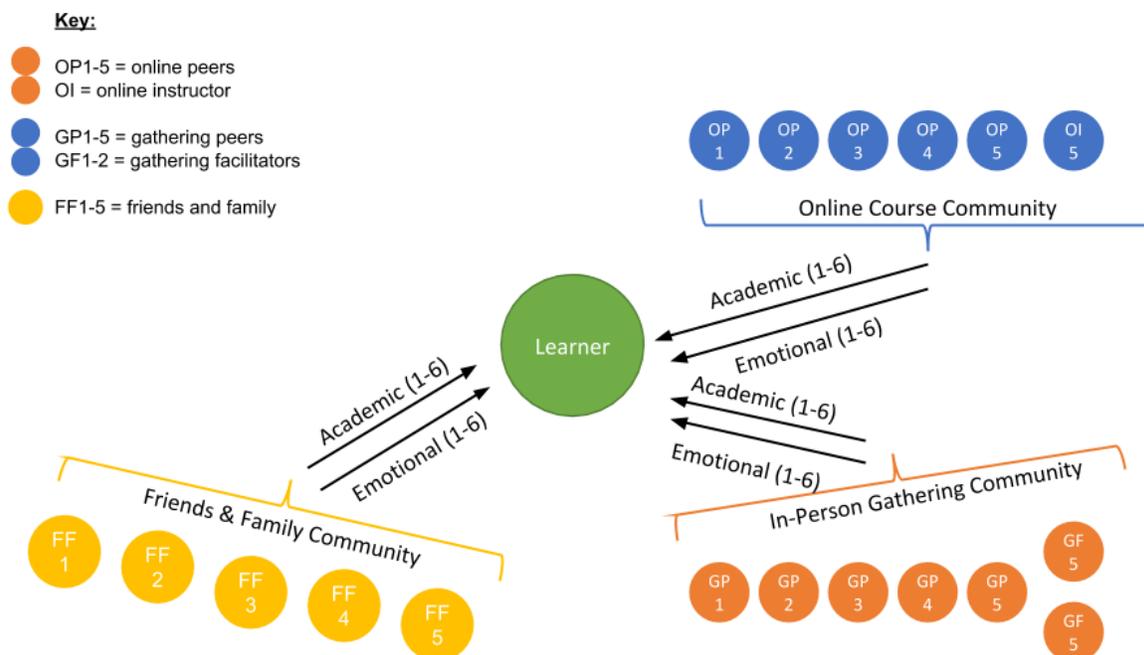
Figure 2.3. Academic communities of engagement that may support a student.

The number of each type of ties was our measure of ego's degree for each community of engagement. We also compared the average tie strength of the students' relationships in the different communities to students' perceptions of their engagement in their online course, in-person gathering, and friends and family community experiences. To measure overall perceived student engagement, respondents were asked to rank their engagement—as a measure of cognitive engagement, commitment, or investment; (Jimerson, Campos, & Greif, 2003; Marks, 2000),—and enjoyment—as a measure of emotional engagement, (Skinner, Kindermann, & Furrer, 2009)—in their online course and in-person gathering. There was also a space provided if respondents wanted to comment on their online course, in-person gathering, or the program overall.

Data Analysis

We received a total of 420 survey responses. We removed responses that did not list any peers and/or rate peer support, instructor support, or engagement as incomplete data sets. This left us with a total of 340 responses. The cleaned survey data was analyzed descriptively and used to create an ego-centric network for each student as well as to conceptualize the ego's degree and average tie strength of their support system from the three communities. The students each received a score based on the number of connections they listed (ego's degree) and the average tie strength of their relationships. These numbers were then compared across contexts and to their perceptions of their engagement to determine if there was evidence of influence (see Table 2.1).

Table 2.1

Research Questions, Data Collected, and Data Analysis Methods

Research Question	Data	Analysis
RQ#1a How does perceived student engagement compare between the online course and in-person gathering communities?	Combined average engagement (for each ego) Engagement (online, in-person, score=0-8) Enjoyment (online, in-person, score=0-8)	*T* test to compare the perceived engagement in the online course and in-person gathering communities.
RQ#1b How does the number (ego's degree) compare between the online course and in-person gathering communities?	Number of supportive relationships (Ego's degree, 0-5 peers per group)	*T* test to compare the ego's degree between communities (online class, in-person gathering) in terms of the number of ties to each ego.
RQ#1c How does average strength of supportive ties compare between the online course, in-person gathering, and friends and family communities?	Average tie strength (on a scale from 0-6)	*T* test and ANOVA to compare the average tie strength of the communities (online class, in-person gathering, friends and family communities) based on academic and emotional support.
RQ#2a How does the number (ego's degree) affect student's perceived engagement?	Number of supportive relationships (Ego's degree) Perc. eng. in gathering Perc. eng. in Online Course	Simple linear regression to test the association of ego's degree in communities to the ratings students give of how engaging and enjoyable they find each context.
RQ#2b How does the average strength of supportive ties affect student's perceived engagement?	Average tie strength - see above Perc. eng. in gathering Perc. eng. in online course	Simple linear regression to test the association of average tie strength of communities to the ratings students give of how engaging and enjoyable they find each context.

Findings and Discussion

We used various statistical tests to test each of our hypotheses. Research question 1 was answered using paired samples *t test*s. Research question 2 was answered using simple linear regressions.

Research Question 1

How does perceived student engagement and the number (ego's degree) and average strength of supportive ties compare between the online course and in-person communities? In order to answer research question #1 we used paired-samples *t test*s to compare the means of the reported variables in the online class and gathering contexts. In order to better understand the effects of any statistical differences, effect size, specifically Cohen's *d*, was also computed. Effect size explains the difference in means in terms of standard deviations. Cohen's *d* provides a measure of practical significance which goes beyond statistical significance to effects that might be readily visible to those participating or observing (Cohen, 1992). A Cohen's *d* effect size measure of 0.20 or below (1/5 of a standard deviation) is considered small and would not likely be practically observable. An effect size of around 0.50 (1/2 of a standard deviation) is considered moderate and would likely be noticeable. An effect size of 0.80 (4/5 of a standard deviation) or above is considered high and should be easily seen by those involved or observing.

Engagement. Respondents were asked to report how engaging (a measure of academic engagement) and enjoyable (a measure of emotional engagement) their online course and gathering meetings were. While the reported engagement levels were high across the board, they were consistently higher in the gathering than in the online course. A paired-samples *t test* was conducted to compare perceived academic engagement (on a scale from 0-8) in the in-person gathering and the online course conditions. There was a significant difference in the scores for the gathering (*M*=6.59, *SD*=1.67) and the online course (*M*=5.74, *SD*=1.68) conditions; $t(336)=8.965, p < 0.001$. Further, Cohen's effect size value (*d*=0.51) suggested a moderate practical significance. A parallel *t test* was conducted to compare perceived emotional engagement, or enjoyment (on a scale from 0-8). There was a significant difference in the scores

for the gathering (*M*=6.59, *SD*=1.72) and the online course (*M*=5.77, *SD*=1.77) contexts;

$t(336)=8.448$, $p < 0.001$. Cohen's effect size value (*d*=0.47) suggested a slightly lower, but still

moderate practical significance (Table 2.2).

Table 2.2

Comparisons Between Perceived Academic and Emotional Engagement in Gathering and Online Courses by Role

	Context	Mean	N	Std. Dev	t	df	Sig. (2-tailed)	Effect Size
Academic Engagement (0-8)	Gathering	6.59	337	1.67	8.965	336	0.000	0.51
	Online	5.74	337	1.68				
Emotional Engagement (0-8)	Gathering	6.59	337	1.72	8.448	336	0.000	0.47
	Online	5.77	337	1.77				

Engagement could vary across contexts for many reasons. Some possible causes include differences in course design or student characteristics. Our findings, however, suggest that there is some difference between the online course and in-person gathering circumstances that evokes different engagement levels in the students. We will later explore the possibility of variance being connected to the ties that students have cultivated in each context.

Students reported that both contexts were highly engaging academically and emotionally. This measure may be hindered by the halo or ceiling effect; however, it does demonstrate a significant difference between the online course and in-person gathering experiences. Overall, perceived academic and emotional engagement levels were extremely similar. Students reported slightly higher emotional engagement than academic engagement in their online courses and found their in-person gathering meetings slightly more academically engaging than emotionally

engaging. This is interesting because the purpose of the in-person gathering is more focused on emotional support while the online courses are geared toward the academic purposes.

Ego's degree. Students were asked to list up to five supportive peers in their online course, in-person gathering, and friends and family communities. The number listed provides a measure for each ego's number of ties in each context. Out of the 345 respondents who listed peers (before those who did not provide ratings were removed from the sample), the largest proportion (n=145, 42.0%) listed the maximum of five possible. The next largest group was those who listed five in-person gathering peers, and none in the online course (*n=82, 23.7%*). It is clear that overall, many more in-person gathering peers were listed as supportive than online course peers (Figure 2.4).
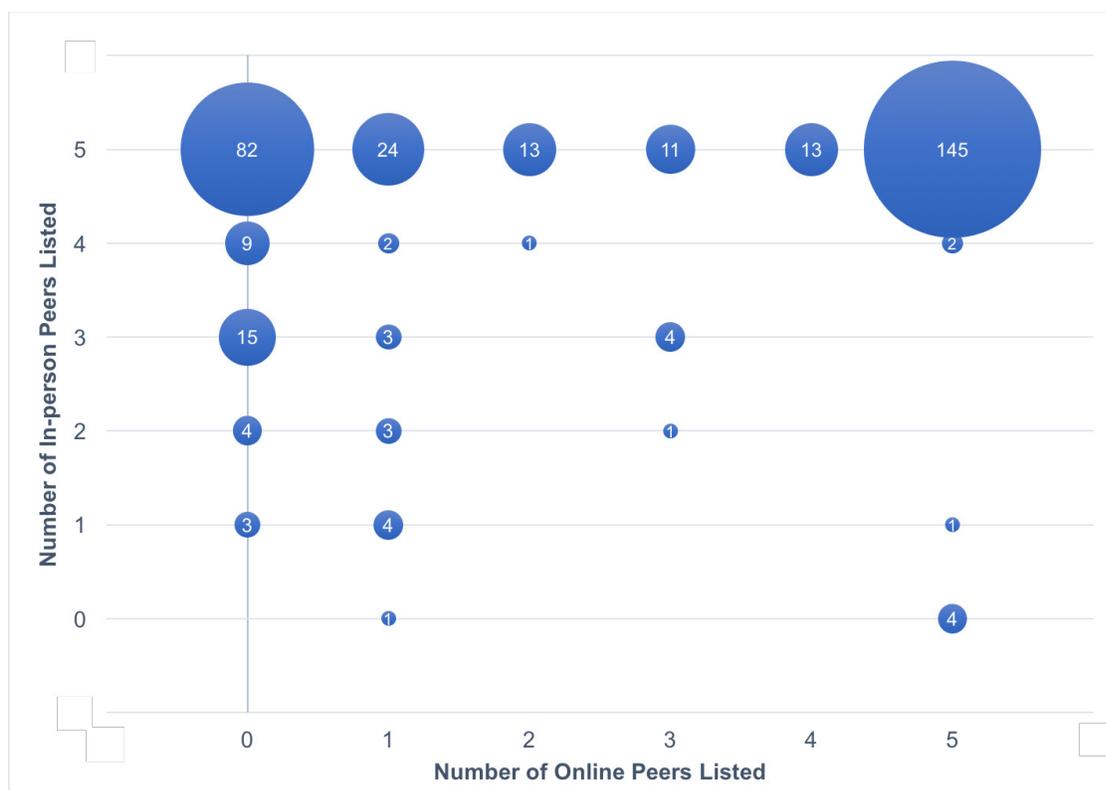
Figure 2.4. Comparison of the ego's degree of supportive peers listed.

In a paired-samples *t test* comparing the ego's degree of supportive peers in the in-person gathering and the online course, there was a significant difference between the in-person gathering (*M*=4.6, *SD*=1.04) and the online course (*M*=2.66, *SD*=2.27) contexts; $t(339)=15.617$, $p < 0.001$. Further, Cohen's effect size value (*d*=1.09) suggested a very high level of practical significance (Table 2.3).

Some students could possibly have listed even more supportive peers given the opportunity. The mean of 2.66 peers listed from the online course is far below the maximum possible, which suggests there would have been few instances where this was the case. Given the limits, there is a clear difference between the numbers of supportive peers reported. In order to mitigate memory issues, students were allowed to look up the names of peers if they chose to. It should be noted that a list of online course peers is accessible via the learning management system where no specific equivalent place exits for the in-person gathering. This suggests that the students did find a higher number of supportive peers in the in-person gathering group. This may be influenced by the in-person advantages it offered or the length of time that students spent connected to their in-person gathering peers (1-2 hours a week for a year) compared to the online course (a variable amount of time depending on course design for a semester).

Table 2.3

Comparisons between Ego's Degree in the In Person Gathering and Online Classes

	Context	Mean	N	Std. Dev.	t	df	Sig. (2-tailed)	Effect Size
Ego's Degree (0-5)	Gathering	4.6	340	1.04	15.62	339	0.000	1.09
	Online	2.66	340	2.27				

Average tie strength of supportive relationships. Each respondent was asked to rate their instructors and the supportive peers they listed based on the level of emotional and academic support they provided. In every instance but one (instructor academic support) the members of the in-person gathering community were reported as offering more support than those in the online course (Table 2.4).

Table 2.4

T test Comparisons for Support in In-Person Gathering and Online Courses

	Context	Mean	N	Std. Dev.	t	df	Sig. (2-tailed)	Effect Size
Emotional Instructor/ Facilitator Support	Gathering	5.44	340	1.100	7.945	339	0.000	0.52
	Online	4.73	340	1.5				
Emotional Peer Support	Gathering	4.59	340	1.650	23.173	339	0.000	1.59
	Online	1.73	340	1.940				
Total Emotional Community Support	Gathering	4.83	340	1.330	23.364	339	0.000	1.70
	Online	2.23	340	1.710				
Academic Instructor/ Facilitator Support	Gathering	4.72	338	1.510	-0.575	337	0.000	-0.03
	Online	4.77	338	1.620				
Academic Peer Support	Gathering	4.71	340	1.790	23.34	339	0.000	1.50
	Online	1.51	340	1.940				
Total Academic Community Support	Gathering	4.38	340	1.600	25.040	339	0.000	1.40
	Online	2.05	340	1.720				

Peer support was reportedly very different between the online course and in-person gathering communities (Table 2.5). A paired-samples *t test* was conducted to compare emotional support from peers in the online course and in-person gathering communities' contexts. There was a significant difference in the scores for the in-person gathering (*M*=4.59, *SD*=1.65) and the online course (*M*=1.73, *SD*=1.94) conditions; $t(339)=23.173$, $p < 0.001$. Further, Cohen's effect size value (*d*=1.58) suggested a very high practical significance. A similar test compared academic support from peers in the online course and in-person gathering communities. There was a significant difference in the scores for the in-person gathering (*M*=4.31, *SD*=1.79) and the

online course (*M*=1.51, *SD*=1.94); *t*(339)=23.342, *p* < 0.001. Cohen's effect size value

(*d*=1.500) suggested a similarly very high practical significance, though slightly lower than for

emotional support.

In comparing instructor support we found one category, academic support, in which the

students rated online instructors as slightly more supportive than their facilitators (Table 2.5). A

paired-samples *t test* revealed that academic support from instructors (on a scale from 0-6) in the

in-person gathering (normalized mean of support from both facilitators) and the online course

(the total/normal support from one instructor) showed no significant difference between the in-

person gathering (*M*=4.72, *SD*=1.51) and the online course (*M*=4.77, *SD*=1.62) conditions;

t(337)=-0.575, *p* < 0.001. It is appropriate that online instructors would be more academically

supportive since facilitators are tasked mostly with administrative duties rather than teaching. It

is more striking that the academic support of online teachers is not significantly different than

that of facilitators since their primary role is to teach and give feedback on course material.

Emotional support from instructors was also more similar across contexts than peers.

While there was a significant difference between the in-person gathering facilitators (*M*=5.44,

SD=1.1) and the online course instructors (*M*=4.75, *SD*=1.48); *t*(339)=7.945, *p* < 0.001. It was

small and only of moderate practical significance (*d*=0.52).

Emotional support from the entire community of peers and instructors was slightly higher

than academic (Table 2.5). In a paired-samples *t test* comparing emotional support in the in-

person gathering and the online course there was a significant difference in the scores for the in-

person gathering (*M*=4.83, *SD*=1.33) and the online course (*M*=2.23, *SD*=1.71) conditions;

t(339)=23.364, *p* < 0.001. Further, Cohen's effect size value (*d*=1.69) suggested a very high

practical significance. A parallel test of academic support also found a significant difference

between the in-person gathering (*M*=4.38, *SD*=1.60) and the online course (*M*=2.05, *SD*=1.72) conditions; *t*(339)=25.04, *p* < 0.001. The Cohen's effect size value (*d*=1.40) suggested a very high practical significance, though slightly lower than that of emotional support.

A one-way repeated measures ANOVA was calculated comparing *average emotional tie strength* in the three support communities (instructors and peers online, instructors and peers in the in-person gathering, and everyone in the friends and family community). A significant effect was found (F(2, 678)=345.98, p < 0.001). Follow-up protected *t test*s (with a significance level of 0.017) revealed that the in-person gathering offered the highest emotional support (*M*=4.83, SD=1.33), followed by the friends and family (*M*=4.27, *SD*=1.87), and the online course (*M*=2.23, *SD*=1.71). Another ANOVA comparing average academic tie strength found a significant effect as well (*F*(2, 678)=259.70, *p* < 0.001). Follow-up protected *t test*s paralleled those for emotional support with even more pronounced differences. The in-person gathering offered the highest academic support (*M*=4.38, *SD*=1.60), followed by the friends and family (*M*=3.51, *SD*=2.07), and the online course (*M*=2.05, *SD*=1.72).

There is a clear difference between the way students are experiencing their online course and their in-person gathering groups, with students reporting much more support in almost all ties and roles in the in-person gathering. The implications are particularly important when we consider that after the year of the program is completed students will transition to a completely online learning model and will no longer have the mechanism of support offered by the in-person gathering.

Research Question 2

How does the number (ego's degree) and average strength of supportive ties affect students' perceived engagement? In order to answer research question #2 we computed a simple linear regression to explore the relationships between the ego's degree and average tie strength of students' relationships and their perceived engagement.

A simple linear regression (Table 2.5) was calculated to predict participants' gathering engagement based on their listed number of gathering peers (ego's degree). A significant regression equation was found ($(1,338)=11.050$, $p < 0.001$), with an R^2 of 0.032. Participants' predicted gathering engagement is equal to $10.467= 0.569$ (number of gathering peers) points. Participants' engagement increased 1.102 points for each gathering peer listed. This was the only measure of ego's degree that was statistically significant and had a very low predictive power.

Table 2.5

Individual Linear Regressions Perceived Engagement and Ego's Degree

	Gathering Engagement			Online Engagement		
	B	SE B	β	B	SE B	β
Ego's degree of In-Person Gathering Peers Listed	.569	.171	.178**	.154	.169	.049
Ego's degree of Online Course Peers Listed	.130	.080	.088**	.110	.077	.077
Ego's degree of Friends and Family Listed	.257	.119	.117	.200	.115	.094

**Significant at the 0.01 level.
*Significant at the 0.05 level.

This may be influenced by the limited number of peers (0-5) each student could include in the reported network because it allows for a small range of possible results. As we see later, the connection between engagement and tie strength is much higher, suggesting that the amount of support is more meaningful than the number of people who provide that support. The low predictive power in the regression may also be connected to the low amount of variation in students reported engagement. We believe that there may have been a halo effect, students tend to report things fairly favorably. Also, because we surveyed students at the end of their experience and many students, who were presumably less engaged, had left the program previously, leaving only more engaged students to continue on and participate in an optional survey.

In the gathering context, peer support carried more weight than instructor support both emotionally and academically (Table 2.6). A simple linear regression was calculated to predict

participants' gathering engagement (the total of their academic engagement and emotional enjoyment in the gathering) based on their normalized emotional support from their gathering peers. A significant regression equation was found ($F_{(1,338)}=144.537$, $p < 0.001$), with an R^2 of .300. Participants' predicted total gathering engagement (on a scale from 0-16) is equal to 8.025 + 1.102 (emotional support from gathering peers, on a scale from 0-6) points. Participants' perceived engagement increased 1.102 points for each point of emotional support from gathering peers. In comparison emotional support from facilitators has much lower predictive power ($\beta=.368$). Academic peer support ($\beta=.500$) and academic facilitator support ($\beta=.455$) follow the same pattern. Overall when considering the gathering, the support of the entire community is greater predictor of support from those in each role in terms of both emotional ($\beta=1.434$, also the highest predictor of all of our measures) and academic ($\beta=1.062$) support. This suggests that while peers play a larger role than instructors in student engagement, the community works best when peers and instructions work together to support the learner.

Table 2.6

Individual Linear Regressions between Perceived Engagement and Support

		Gathering Engagement			Online Engagement		
		B	SE B	β	B	SE B	β
Emotional Support							
Gathering	Facilitators	1.114	.153	.368**	.864	.153	.294**
	Peers	1.102	.092	.547**	.590	.101	.302**
	Community	1.434	.111	.575**	.818	.124	.338**
Online	Instructors	.284	.122	.126*.	.982	.106	.449**
	Peers	.326	.092	.190**	.437	.087	.262**
	Community	.385	.104	.198**	.590	.098	.312**
Friends and Family		.418	.094	.235**	.443	.091	.256**
Academic Support							
Gathering	Facilitators	.992	.106	.455**	.839	.106	.395**
	Peers	.930	.088	.500**	.589	.093	.327**
	Community	1.062	.097	.512**	.774	.101	.384**
Online	Instructors	.349	.111	.169*	.761	.101	.379**
	Peers	.299	.092	.174**	.442	.087	.266**
	Community	.368	.104	.190**	.582	.097	.309**
Friends and Family		.280	.086	.175**	.368	.082	.236**

**Significant at the 0.01 level.
*Significant at the 0.05 level.

In contrast, online instructor support was more predictive of student engagement than the support of online peers. A simple linear regression was calculated to predict participants' engagement in the online class based on their emotional support from their online instructor. A significant regression equation was found ($F(1,338)= 85.167$, $p < 0.001$), with an R^2 of .201. Participants' predicted perceived engagement is equal to $6.845 + .982$ (online instructor support) points. Participants' online engagement increased .982 points for each point of online instructor support. In comparison emotional support from peers had much lower predictive power ($\beta=.262$). Academic instructor support ($\beta=.379$) and academic peer support ($\beta=.266$) followed the same pattern.

Friends and family support had little predictive power for student engagement. It was slightly higher in the online context for both emotional ($\beta=.256$) and academic ($\beta=.236$) than emotional ($\beta=.235$) and academic ($\beta=.175$) support from friends and family in the gathering context. While these values are very small, it is encouraging that they are slightly higher in regard to online engagement since students will likely retain support from these friends and family members as they enter fully online learning. Overall, support from friends and family seems to be less related to perceived engagement in the in-person gathering than in the online course. This may be related to the high support students reported receiving within the context of the in-person gathering filling their need for support there. It could also be connected to the more rigorous academic nature of the online course requiring and inspiring more help from family and friends than the in-person gathering.

Conclusion and Future Research

Learner engagement is a crucial factor of educational success (Sinatra, Heddy & Lombardi, 2015). Here we have focused quantitatively on the relationships that form students' academic communities of engagement and how they influence students' perceptions of their engagement. This research suggests that an in-person, human community has the potential to support increased perceived student engagement in ways that are different from an online course community.

Students reported forming significantly more supportive relationships with their peers in-person than they did online. There may be some personal factors that affect whether learners are interested in forming academic relationships at all. Almost a quarter (23.7%), however, reported the maximum number of in-person peer relationships and not a single peer relationship online. For these students something besides an indifference to relationships with their peers was at play. It is possible that the transactional distance between them and their online peers was too great (Moore, 1993). Moore's theory of transactional distance considers dialogue (specifically student–instructor) and course structure as the basic variables that lessen or widen the transactional distance learners experience (Moore, 1993). It is possible that the online courses did not offer sufficient dialogue as they relied mostly on asynchronous discussion boards and email for interactions between students and their peers and teachers. These might have felt especially lackluster when compared to the weekly, in-person meetings that students had with their gathering groups. We should seek to better understand why so many respondents form more relationships in-person and what can be done to encourage relationship formation online.

In this context the average tie strength of the relationships students reported are markedly different between the online course and in-person gathering communities. The online and in-

person contexts are fundamentally different in terms of how students connect to those that share the experience with them. The difference in connection strength was likely influenced by the difference in communication fidelity between the two environments (Graham, 2006). The online environment primarily relied on low-fidelity, asynchronous, text-based interactions while the gathering environment consisted of high-fidelity, synchronous, in-person interactions. In-person relationships may be easier to form and also feel more real and human than those online. Relationships and community can certainly be built at a distance (Rovai, 2002) but may require more effort and time. There is evidence that high-fidelity video interactions can be effective in both a synchronous as well as an asynchronous online learning environment (Borup, West, & Graham, 2012; Falloon, 2011; Griffiths & Graham, 2009).

There are also significant differences ($p < 0.000$) between the support that learners reported receiving from their peers and their instructors or facilitators. These differences are especially stark in the online context with instructors providing more support than peers both emotionally ($d=1.75$) and academically ($d=1.82$). Research in the K-12 realm has delved into the different roles that are played by teachers, peers, and parents as they support learners (Furrer, Skinner & Pitzer, 2014). These roles also seem to have different influences on student engagement (Furrer & Skinner, 2003). The Adolescent Community of Engagement (ACE) suggested by Borup et al. (2014) offers a possible way to conceptualize how individuals in each role can support student engagement for adolescents learning in online contexts. It posits three outside supports for student engagement: (a) peer engagement, (b) teacher engagement, and (c) parent engagement. Each of these, in turn, heightens student engagement in its own way. While they contribute together to enhance student engagement, each type of engagement can also be meaningful independently (Borup et al., 2014). This framework speaks to the importance of

relationships in engagement but is geared specifically toward adolescent learners who have some needs that are different from those of adult students.

Parents, teachers, and peers have unique, but sometimes overlapping, roles in this model (Borup et al., 2014). Teachers facilitate interaction, organize the course, and instruct students. Facilitating interaction is the role most connected to the relationship between instructor and students. Teachers nurture students by supporting them socially and emotionally, monitoring and motivating them in their assignments, and encouraging communication between themselves and their students as well as the others in the students' community. Parents fill the same overarching roles as teachers but in different ways. They nurture students and, within the ACE framework as the students are minors, provide for their needs and ensure their wellbeing. They also monitor and motivate students when they lack self-regulation or autonomy, as many adolescent learners do. Peers, while not as responsible for another's learning, can support their classmates' engagement by instructing, collaborating, as well as motivating either explicitly or implicitly (Borup et al., 2014).

The roles of parents, teachers, and peers are somewhat different for adolescents than they are for adult learners. In the adolescent context, parents often play the most central role in supporting their children's academic pursuits. For adult students, the support they receive is different than it is for adolescents. Parents and other mentors continue to support adult students, however, their involvement is typically more limited than for the adolescent learner. Conversely, peers may play a larger role for adults because they are also adults and are more able to contribute. The ACE framework is focused on adolescent students, but interactions and relationships that form a community of academic engagement are also important for adult

learners. The understanding of supportive roles around students provided by the ACE framework also has implications for students in higher education settings.

The student experiences online and in-person are also distinct in the ways that students experience them, as evidenced by the distinct ways that they rated their engagement. From a design and teaching standpoint we need to approach them as the unique experiences they are (Graham, 2006; Summers, Waigandt, & Whittaker, 2005). Both online and in-person scenarios have inherent, unique strengths, even in the mechanisms by which students connect with their instructors and peers (Meyer, 2003; Tutty & Klein, 2008). The strengths inherent in each context must be leveraged appropriately to produce the best student experience. The average tie strength of academic relationships has a positive effect on students' perceived engagement. In our data set this effect is more marked in the in-person context. This is telling since in the program context the ultimate goal is success in the online course, which is meant to be supported by the in-person gathering.

Students may build in-person relationships more easily and these relationships could hold more weight than those they have online (Cummings, Butler, & Kraut; Muilenburg & Berge, 2005). Emotional support from the in-person community, especially peers, is the measure that was most connected to engagement. In K-12 literature, care is used to explain emotional connections between students and their instructors (Noddings, 2013). One aspect of a caring teacher–student relationship can be teachers facilitating students in caring for their peers (Borup, Graham, & Velasquez, 2013). While this research focused on adolescent students, it parallels these findings among adults. It may be especially meaningful in contexts such as this program where students are often from underserved populations and beginning their educational journey. Emotional support was important to our respondents even though, or perhaps because of, it was

not an explicit part of students' task while in the program. It may have untapped potential for influencing student engagement.

As we better grasp the factors that promote relationships that support engagement we may be able to thoughtfully translate them to an online situation. It is also possible that deeper study can reveal how the strong relationships students form in-person can support them in their online learning. For example, our research showed that academic support from the in-person group is more connected to online engagement than academic support from those in the online community. If we can understand more about this phenomenon, we may be able to capitalize on it to support online engagement. Further, if we can understand the ways that support is happening effectively in the online context, we can maximize those interventions.

This research is limited by the nature of quantitative, statistical research that looks broadly at the phenomenon but not deeply into individual experience. Future research should delve more deeply into the how and why of these quantitative findings. How do students describe their relationships with people in various roles in their blended college preparation and fully online experiences and the effect of those relationships on their engagement? This study is also limited in scope, as it focused widely on relationships in each context but not specifically on how those relationships were formed and what can be done to support them. What characteristics of the in-person gathering and online course promote the connections that contribute to engagement? What can be done to enhance those things both in in-person and online settings?

In the online setting most interaction takes place via discussion board. What can be done to apply effective practices for building supportive relationships to that context? Further, this study was limited by self-reported data about student engagement. Future research should

involve more items to better capture students' engagement rather than their perceptions of it. Other research should also measure relationships in addition to other factors, both course design and student characteristics, to create a more complete model of the student experience and further understand how relationships contribute to student engagement.

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Article # 3: The Nature of Supportive Academic Relationships and Their Influence on Student

Engagement

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Abstract

We suggest that in-person, human relationships have the ability to bolster perceived student engagement in ways that are unique from the support offered in an online course community. Student engagement is an important element in student academic success and experience. In this research we have qualitatively explored the relationships of students in a blended, college preparation experience, a program that prepares non-traditional students for entry into higher education. We investigated how students form three distinct academic communities of engagement and how those communities influence students' perceptions of their engagement in blended and online contexts. As online learning expands and technology develops to allow computers to act in increasingly personalized and, in some facets, human ways, we submit that an in-person, human community may uniquely support increased student engagement. Relationships between students and their teachers and peers influence student engagement and should be cultivated to improve student success and experience.

Keywords: learner engagement, relationship, interaction, community

The Nature of Supportive Academic Relationships and Their Influence on Student

Engagement

Early distance education was concerned with geographical distance because of the limitations of technology. However, with the advent of computer-mediated communication this became less of an issue (Garrison, 1997). Concerns in distance education transferred from geographical space to psychological space and the focus moved to such issues as interactions (Moore, 1989), transactional distance (Moore, 1993), and community (Garrison, Anderson, & Archer, 2010). Interaction between learners and their instructors and peers, which must be handled carefully in distance learning, has been connected to student engagement (Bernard et al., 2009). We explore the issues of interactions, relationships, and community in a blended learning context in order to understand these phenomena and their influence on student engagement.

Introduction and Literature Review

Student engagement is connected to several improved outcomes (Casuso-Holgado et al., 2013; Harper & Quaye, 2009; Mountford-Zimdars et al., 2015). Engagement influences cognitive advancement through critical thinking, grades, and persistence (Carini, Kuh, & Klein, 2006; Trowler, 2010). Self-esteem, ethical development, and satisfaction are among engagement's affective benefits (Johnson, Edgar, Shoulders, Graham, & Rucker, 2017; Trowler, 2010). While student engagement is generally understood as an important part of student learning, the field of education lacks a firm definition. One definition we are drawn to describes student engagement as the "quantity and quality" of energy exerted in learning (Halverson, 2016; Henrie, Bodily, Manwaring, & Graham, 2015, p. 132). This energy is exerted cognitively by "attention and effort" and emotionally through "interest, enjoyment, or satisfaction" (Henrie et al., 2015, p. 132-133; Manwaring, Larsen, Graham, Henrie, & Halverson, 2017). Engagement

is supported by many variables (Parsons & Taylor, 2011; Spring, Graham, & Ikahihifo, 2018). We propose that the interactions, relationships, and communities a student participates in are among these meaningful variables.

Interaction between learners and their instructors and peers is an important part of the educational experience (Moore, 1989). Interactions can be described as the pieces that make up a relationship (Crossley, 2011). We submit that relationships are distinct from a simple set of interactions primarily because they *require* an emotional component. Relationships can then, in turn, comprise a community (Scott & Marshall, n.d.). Each of these phenomena has also been connected to student engagement (Armellini & De Stefani, 2015; Bernard et al., 2009; Garrison & Arbaugh, 2007; Liberante, 2012; Quinlan, 2016).

In order to better understand the academic communities of engagement that support students' academic learning online and in-person, we must better conceptualize the relationships that comprise them. This research seeks to delve deeply into the supportive relationships that students have with those in their academic communities of engagement and how those relationships affect students' perceptions of their engagement.

Research Context

Our research context was a year-long, blended, college preparation program (see Figure 3.1), in which students participated in an online course and an in-person weekly support group called a *gathering*. This program was created to serve non-traditional adult learners who had not been able complete higher education through conventional means. This program presented students with a learning experience to equip them for higher education and online learning.

The program provided a context to explore academic communities of engagement in online and in-person gathering settings. In the weekly in-person gatherings learners met, formed

relationships, and helped each other with learning the content in their online courses. Students were assigned to gatherings based on age and location. Within each gathering were two volunteers who facilitated weekly meetings and supported and cared for students. These facilitators were trained to organize the learning experience and support the students rather than as subject matter experts or academic teachers. Students took turns teaching the lesson and leading a discussion each week. They helped each other with academic assignments from their online course.

Learners were organized randomly in sections of an online course (English, Math, or Life Skills) every semester. Online courses were taught by qualified teachers. Each student in a given gathering studied the same topic in their online course in any given semester. Some may, by chance, have had peers from their gathering group in their online class.

Many students also benefited from the local support of friends and family members. After completing this program, successful students were able to matriculate into a fully online program to continue their university education. While matriculated students continued to take online courses and retained any friends and family support, at this time the in-person gathering ended.

This program was available at a low cost to help at-risk, non-traditional students begin or return to post-secondary education. Tuition fees were based on location and are generally lower than the $71/per credit cost in the United States. Students who matriculated into the fully online university continued to pay the lower cost. Here they had the opportunity to earn an accredited certificate, associate and/or bachelor's degree. The purpose of the program was to help members of underserved populations access affordable education, enrichment, and skills while providing adults with other responsibilities with the flexibility they need. To provide flexibility while

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giving students support, learners took one online course every semester and met with a local

gathering of other students every week to learn as a group, teach one another, and give support.

With these learners in mind, we studied how the online course and in-person gathering

relationships that students might form can support their engagement.
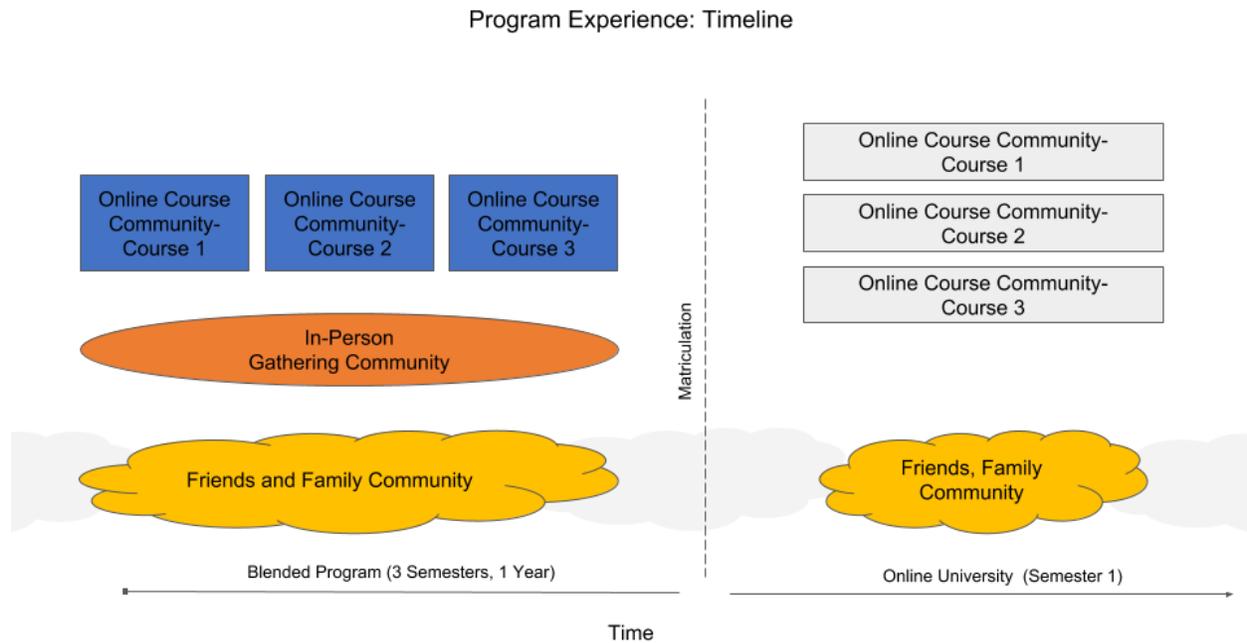
Figure 3.1. Program Experience: Timeline.

We suggest that the instructors, peers, and friends and family members each student connected with (see Figure 3.2) combined to support student engagement. In this context it is unlikely that the individuals in each community would have a connection outside of the student. They therefore do not form a single cohesive community but rather several communities that the learner is a part of. Each of these communities individually strengthens student engagement but a more robust combination of communities would be even more effective. In this article we propose to delve deeply into students' relationships within their academic communities of engagement and into their perception of the influence these relationships and communities have on their engagement. We will also explore the transition from this program (with weekly in-person gatherings) to participation in a fully online program without the organized, in-person community of support.
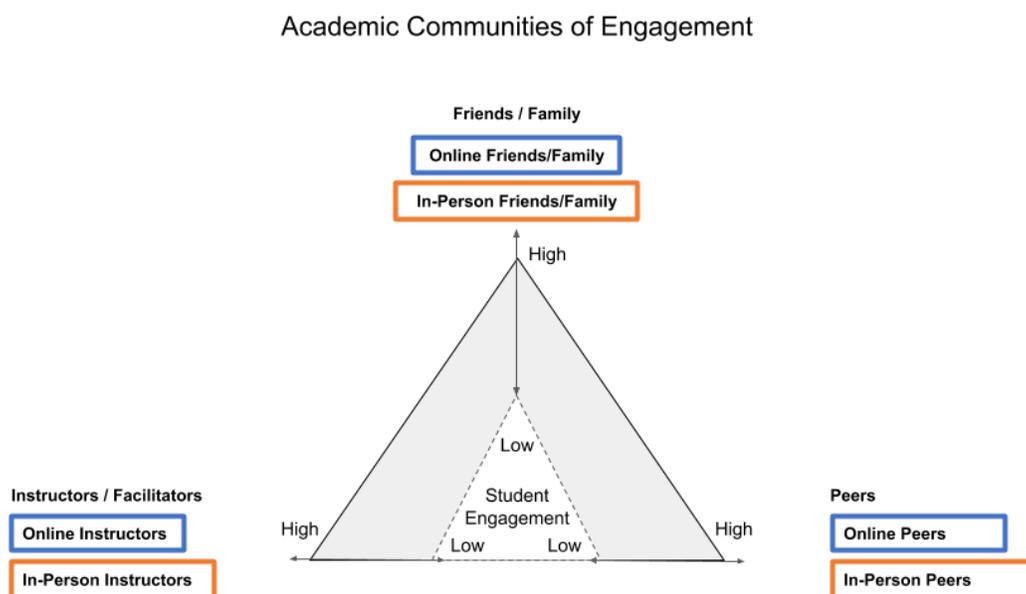
Figure 3.2. Program Experience: Academic communities of engagement.

Research Questions

This research sought to better understand and compare the quality and characteristics of support provided to students by those in their academic communities of engagement (see Figure 3.2). Each learner enrolled in the program participated in an online course and in-person gathering. These gatherings included peers and instructors/facilitators that had the potential to provide support throughout their experience. Students may have also depended on a self-organized community of friends and family during their time in this program. These students participated in a blended learning experience that combined online and in-person study with communities that provided an opportunity to contrast the relationships learners had with their peers and instructors in parallel online and in-person contexts.

In order to explore this issue, we asked two guiding questions:

1. How do students describe their relationships with people in various roles in their blended college preparation experience and the effect of those relationships on their engagement?

2. How do students describe their relationships with people in various roles in their fully online learning experience and the effect of those relationships on their engagement?

Methods

The data in this study was collected via semi-structured interviews that deeply examined the student experience in the program. This method was selected because it allowed interviewers to adjust questions based on the interviewees' responses and focus more completely on compelling subjects that emerged during the interview. The transcribed interviews were coded using thematic networks analysis (Attride-Stirling, 2001). This allowed us to ground the analysis in the data and to describe and explore the most salient thematic networks in our analysis.

Data Collection

We sent a survey to students participating in the program in a single region. The survey took the place of a scheduled weekly reflection for one week. Students who were matriculating into the online university in the Fall 2017 semester were asked in the survey if they would be willing to participate in furthering the research through a series of two interviews. From those who agreed, we recruited and interviewed a total of 14 students using the first interview protocol and 10 of those same students using the second protocol.

The semi-structured interviews began with an attempt to establish rapport and thereafter were guided, but not dictated, by the protocol. Interviewers allowed respondents to choose the direction the interview should take within the protocol. In the first interview we asked respondents about their relationships during the program, their relationships in the online university, their experience transitioning between the two, and how they felt these influenced their academic engagement in these contexts. In the second, and final, interview we asked students to reflect on their experience transitioning from blended to fully online learning and any shifts in their relationships or engagement during this time.

Two trained interviewers conducted the interviews, sometimes alone and sometimes together with one acting as the lead interviewer. The interviews were conducted at two different points—the end of their program experience and the middle of the online university Fall 2017 semester— and lasted 20-45 minutes. The first interview built upon students' initial survey answers and the second interview expanded on the first interview. To create the interview protocol we reflected on the research questions and identified broad areas to be covered—the nature of relationships, facilitating and instructing behaviors, the effects of all on engagement— and sequenced them in a sensible order. We then created questions to address those areas and

probes to prompt respondents to expand their answers. We made the questions as general as possible to allow respondents to answer as they felt appropriate. We also conducted four interviews, debriefed after each one, and reviewed the information that respondents shared, applying new insights to clarify and strengthen the interview protocols.

Data Analysis

The interviews were transcribed and analyzed to discover themes. Following the thematic networks technique (Attride-Stirling, 2001), we began by devising a coding framework based on the questions and topics generally covered in the interview protocol. We identified basic codes in each transcription and combined them into organizing and global themes. Basic codes were the most granular. These were grouped into slightly broader groups that shared an organizing theme. Finally these organizing themes were clustered into global themes that encompassed the major points of the research. This process allowed us to describe and explore the most salient thematic networks in our analysis.

As we progressed through the transcripts, the themes from earlier transcripts informed the themes we discovered in later transcripts. We strove to remain open to new themes throughout the process. We also reviewed earlier transcripts using the codes added later. After one researcher coded a transcript, it was reviewed by the other. Finally we reviewed the themes and constructed a list from the entire study by negotiating, rearranging, and combining themes.

<center>**Vignettes**</center>

In order to provide a rich picture of the student experience, we selected three students to highlight. We begin with a typical case, Victoria. She had good experiences during the program and in her transition to the online university, as did almost all the students we talked to. Then we describe two outliers: Deborah, who was especially bolstered by her in-person gathering group

and struggled without that support in the transition to the online university, and Emma, who had a negative in-person gathering experience and no problems leaving it behind to transition to fully online learning. These vignettes demonstrate a typical case for our respondents, as well as the diversity of responses we received.

Victoria

Victoria, a mother of several young children, was perusing a degree in Marriage and Family Studies. She was self-motivated and generally enjoyed her time in the program. While she "didn't have any complaints" about her online class, she felt she was "not really connecting" with her peers. In contrast the gatherings were her "most favorite thing." She "realized how much [she] really needed and wanted support from people and loved the interactions." Despite noticing a stark difference between her relationships in the online and in-person gathering experience, she did not observe a marked difference in her engagement because of it. Victoria exemplified the most common experience among our participants. She had positive experiences in both the gathering and online class and never considered dropping out.

Her transition to and experiences in the online university were also valuable. She described enjoyable interactions with her instructors and peers, which were more frequent and connected than the ones she had in her online classes during the program. Victoria explained, "I didn't feel as close to the online people [in the program]. . .because you're not really connecting the space or person with that. However, in contrast, right now I have a class where you get on your video chat . . . and then you're talking and having a discussion. . . .I really like that." She said of her online instructors: "You can tell that they are very compassionate and understanding, and you can feel that they really want you to succeed." She, like most of our participants,

continued to be engaged in her education and did not feel her commitment change during the transition.

Deborah

At 64 years old Deborah was the oldest person in her "Thursday gathering group." Deborah enjoyed being around and learning about people. She pulled her group together and knew all their stories—the man who had been without a job, the stylish and kind woman, the man on dialysis, the woman struggling with her religion. For Deborah, the gathering group was the catalyst that kept her in the program and propelled her into her online university classes. She was unique in how much of a concrete impact the gathering experience had on her. She had always wanted to go back to school and get a degree. Now seemed like the right—and perhaps the only—time she had to fulfill this dream. The classes were "a brain jerker." Math and using the computer were particularly challenging. But people in the group helped her. She would say, "Guys, I don't understand this," and they would say, "We thought of you when we were doing this problem." Then they sat down with her and worked through the problems together. Deborah never missed a Thursday gathering meeting, and with support from her group she was able to finish the program and matriculate into the online undergraduate program.

Unfortunately, Deborah's experience as a matriculated student was not as positive. She struggled more than most of the others we talked to. She started out taking three classes but dropped two of them, keeping only a family history class. That class was a disappointment to her, though she understood the content. She struggled to understand how to use the computer and there were no Thursday group participants or tutors to help her. When she asked her teacher for help, the teacher said that she was expected to "know all that stuff" before she took the class. As an older person, using the computer was not intuitive for her. She could learn how to use the

programs and apps if someone sat down with her and walked her through the steps several times, but she did not have that help. She understood the content of the class but could not manage the external systems that allowed her to turn in her work and participate in the learning experiences. Her time in the online university was fraught with difficulties—with her teachers, with the technology, and with finding help. She relied heavily on her friends and family to help her persevere. Her ecclesiastical leader said, "You can't drop out. . . .Everyone is looking up to you because you've gone back to school at your age." Her son agreed: "'I'd just hate to see that [taking a break and not going back] happen to you,' and he was looking at me like I had to finish." While she continued to struggle with managing the technology in her online class, these people supported her in a vulnerable time and gave her the motivation to keep going. Since Deborah was taking only one course a semester and felt discouraged in her progress, she may struggle more than some to persevere long enough to complete a degree.

Emma

Emma, a self-published novelist, had begun to study business online at the online university. She had a unique experience: She was the only person we talked to who viewed her gathering experience in a mostly negative light. Her gathering was disappointing because the participants "weren't as close-knit of a group; it was very clique-ish." She was also one of the few who also had a mostly positive view of her online class: "if you get a good group, they can be really cool."

Emma was one of the students (the only one among our participants) who had a "speaking partner" (i.e., someone in the program whose first language is not English), whom she spoke with weekly. She explained that "we bonded a lot. We were really close. The requirement was to meet for half an hour and we would talk for two to three hours." Emma, a

young adult, explained that her partner, who lived on another continent, "is in the stage of life that I want to be in." As a mature woman with a family, she became a kind of mentor to Emma as Emma navigated a new relationship and the other tests of young-adulthood.

As she transitioned to the online university, Emma experienced some confusion about how to register for her classes and the procedures of being a student there. She would have appreciated more of an introduction, but overall did not have any major issues. She spoke very positively about the content covered in her current class, but her relationships were shallow. Emma's interactions with her online university peers were very limited; even discussion board assignments were sparse. Her teacher was not very involved in the class either. "I feel so much less motivated to do really good work when I know that he doesn't care, and I know that he doesn't read it, so it feels kind of pointless to me." This lack of investment seems to have negatively influenced her engagement.

Findings and Discussion

In the first interview, conducted near the beginning of each student's first semester at the online university, we asked participants to reflect on their experience in the program, the relationships they formed with those in various roles, and the effects of those relationships on their engagement. We identified several global and organizing themes surrounding the relationships they formed with instructors, facilitators, and peers in their online and in-persons communities (Figure 3.3).
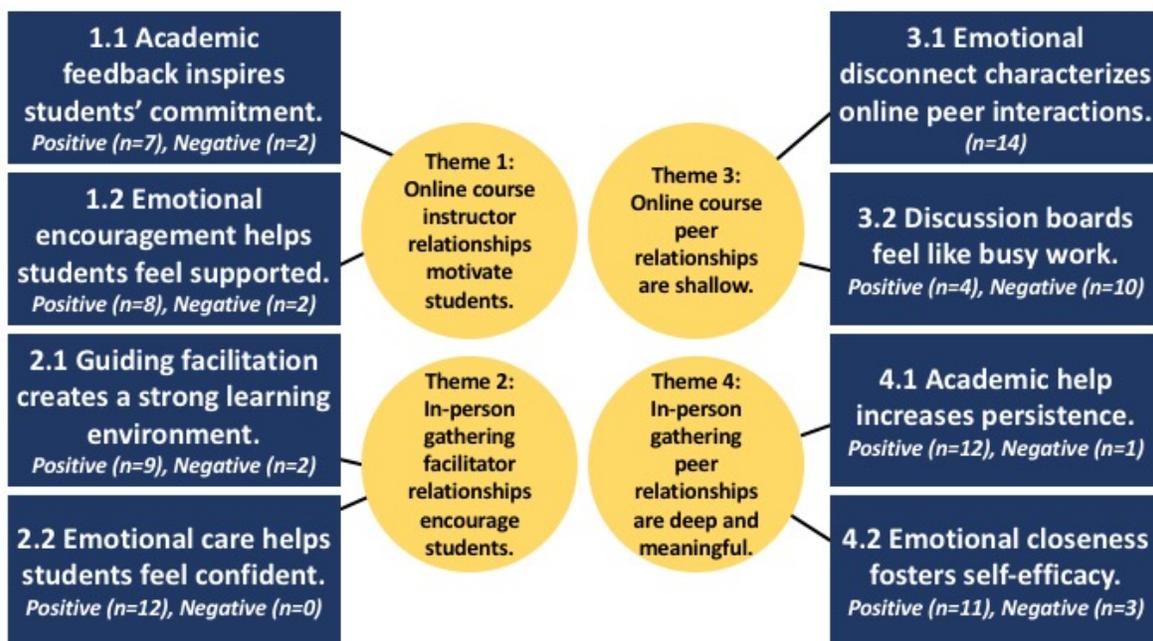
Figure 3.3. Global and organizing themes from research question 1. Number in parentheses represent the number of research participants addressing the theme.

 (Numbers in parentheses represent the number of research participants addressing the theme.)

Global Theme 1: "We're Working Together to Accomplish What We Need" — Online Course Instructor Relationships Motivate Students

Students' reactions to their online instructors ranged from "Oh, the teachers were all fabulous" (Eleanor) to "Nothing special" (Miriam). We identified two important organizing themes related to relationships. These themes address how providing academic feedback and emotional encouragement supported the development of instructor-student relationships and motivated students to commit to their online course.

Organizing theme 1.1: Academic feedback inspires students' commitment. Much of the support and interaction students had with teachers came through the feedback the instructors gave on student assignments. Most students (n=7) felt they received adequate feedback.

Instructors' comments on student assignments, such as asking "personal questions" (Grace) in response to assignments, or feedback like "this was a great paper" (Victoria), helped students feel recognized, validated, supported, and encouraged. Students especially appreciated comments made specifically to them. One said, "I appreciated their feedback because then I felt like I wasn't just turning things in. . . . I invest a lot of myself in my responses, I am the kind of person that likes to pull from my life. They would respond, and it was very thoughtful" (Aria). One student described "a couple private messages back and forth talking about some things in a paper, like how I would write something" (Drew). These seemingly simple efforts on the part of instructors to give students "personal notes" (Victoria) helped students feel heard and remain committed and engaged in the class.

In comparison, some feedback detracted from student motivation (n=2). One student doubted whether her instructor even "read my stuff. I think I just got graded, because I didn't really get any personal feedback" (Julia). This made her feel less interested in investing in doing quality work. "It was disappointing because, to be honest, these are my first college classes. I feel like I put a lot of heart and soul into it, and I don't think I got much of a response. So it just got to the point where [I said to myself,] 'well, I guess I'll just write to write. It doesn't really matter what I do.'" Such neglect was perceived not only as a rejection of the student's work but also of her "heart and soul" (Julia). For this student her course seems to have become more of a list of assignments to complete rather than something that engaged her and encouraged her growth. She explained that she did not feel motivated to engage and try her best to learn, because she realized that her work would be not recognized.

Organizing theme 1.2: Emotional encouragement helps students feel supported.

Many of the students had good experiences with the encouragement extended by their instructors

(n=8) especially when they reached out to them about individual challenges or scheduling

problems. One related, "I had a bad week one week where a lot of things were hitting me at once

that weren't related to school, and I emailed one of my instructors and he was very helpful in

responding and encouraging me that week and being like, 'We'll work with you, keep me

updated'" (Victoria). Other instructors reached out through discussion boards and online

student-teacher conferences. "Those instructors," one student said, "I find myself really

engaging with, pretty much the same as you would a professor on campus" (Grace). Another

student expressed, "I feel supported, like we're working together to accomplish what we need"

(Gabrielle). When instructors offered emotional encouragement and fostered personal

connections, students explained that they felt supported and were able to build meaningful

relationships. While most of the students felt that the teachers "were very supportive and

provided a lot of encouragement" (Leah), some did not (n=2). One mentioned an "awful online

professor" (Catherine) that made the class experience "so hard." A negative experience with an

online professor colored the student's perception of the entire course, besides impeding the

opportunity for a student-instructor relationship.

Global Theme 2: "They Always Believed in Us" — In-Person Gathering Facilitator

Relationships Encourage Students

Each gathering group was facilitated by a two volunteer facilitators who were trained in

organizing the course and supporting students but not in any particular subject. Students

generally connected strongly with their gathering facilitators and appreciated their influence in

guiding the meetings and caring for them emotionally. We identified two important organizing

themes related to relationships with gathering facilitators within the interviews. These themes address how providing guiding facilitation and emotional encouragement supported the development of facilitator–student relationships and encouraged students in their program experience.

Organizing theme 2.1: Guiding facilitation creates a strong learning environment. The facilitators set the tone for the gathering meetings. In most cases (n=9) the facilitators were able to create a positive learning environment for students, but some were not as successful (n=2). One student who experienced two different gathering groups compared her experiences and shared that "the [facilitators] set the stage" (Miriam). A few students experienced facilitators with "issues keeping things organized" (Leah), which made the group meetings less productive. Additionally, some facilitators fostered interactions by "mix[ing] up" (Catherine) the groups and "includ[ing]" (Jessica) more reserved students. They "highlight[ed] the way that [students] interacted with each other" (Leah) and started group Facebook pages that "created an opportunity for . . . developing those friendships" (Aria). Some facilitators had "high expectations" that encouraged students to "come prepared so that you can be involved" (Gabrielle). The facilitators were tasked with organizing the gathering groups and carried out that assignment in varied ways. Those that made creating opportunities for interaction and keeping the group on track a high priority were more likely to cultivate an environment where students were able to learn and form relationships. When they were less successful with the environment, student learning was also likely to suffer.

Organizing theme 2.2: Emotional care helps students feel confident. Many facilitators were a great emotional support to the students. Most respondents expressed feeling strong love and support from their facilitators (n=12), and though some (n=2) did not talk about

that aspect of their relationships, no student mentioned feeling any negative emotions from or toward their facilitators. Students shared many examples like the one of a facilitator who "ran and hugged you and welcomed you and loved you into that place" (Julia) every time someone arrived. They were the "cheerleaders" who "were there to help encourage us. They always believed in us" (Grace). They "were just like parents who were so excited when things were going well for everyone, and they were a listening ear when it wasn't" (Tarah). This positivity and encouragement increased the many students' confidence and self-efficacy. Many students described facilitators that believed their students could succeed in the program and helped the students believe in themselves as well. For these facilitators, their caring was so genuine that many students felt as this one did: "I think towards the end they wanted to adopt all of us as their children" (Victoria). Some of these relationships lasted beyond the program. Groups created Facebook pages, where they continue to encourage each other during their online university classes. Those facilitators who went beyond their organizing, facilitating responsibilities were more able to build their students' determination with their own confidence in them and care for them.

Comparison of Instructor and Facilitator Relationships and Engagement

Although the students almost universally liked their gathering classes and facilitators, relationships with online teachers were not as rich as those in the gathering class. Online teachers contributed academically through their feedback and their encouragement in assignments and when life got in the way of students turning in their work. Facilitators did not have an academic role but instead stood out as they loved and cared for students. Both contributed to student engagement as they fulfilled their roles.

The online teachers' support heightened the students' engagement in their online classes. Teachers helped their students engage by demonstrating that their work "meant something" (Julia). One student explained, "When someone believes in you and they want you to do your best, it makes people want to be their best" (Aria). Another who had a supportive teacher and an absent one said, "The difference [in my engagement] is remarkable" (Emma). The teachers' confidence in the students invited the students to engage in the class with their best efforts.

The facilitators' support was meaningful to the students because they felt that the facilitators sincerely cared for them, prompting the students to believe in themselves and work harder in their classes. Facilitators created an environment that was "a place to fall. . . . just creates ground for growth . . . You're [in a] safe environment and you're loved . . . [It] takes away some of the nerves" (Victoria). One student explained, "They hold that place for you to make it" (Julia). Students grew in "confidence" (Julia) in these nurturing environments.

Strong organization and high expectations also promoted engagement. One student explained that knowing that the facilitators were invested in her success and wanted her to be interested and engaged encouraged her to invest more in the experience. "It helps to have someone back you up" (Emma), she concluded. Another said that when facilitators "set the standards tight . . . the students will follow." She said this will help students have "unity and stay in [the program]" (Miriam).

Global Theme 3: "People weren't too Interested" — Online Course Peer Relationships are Shallow

While students did not usually complain about online peers, they did not connect with them either. We identified two main organizing themes relating to relationships with online peers from the interviews. These themes address how students feeling emotionally disconnected

from their peers and their reactions to the discussion boards that composed most of their interactions influenced their perception of student-peer relationships.

Organizing theme 3.1: Emotional disconnect characterizes online peer interaction. None of our participants (n=14) reported any close relationships with their online peers. Their relationships were "passive" and "there just wasn't a space to really have something beyond that" (Julia). Students reported that they didn't find the online experience conducive for forming relationships. Many felt that interest was a major barrier. One student noted that "people weren't too interested. . . . I'd try to post questions . . . to people and I think they were just trying to get their post done" (Drew). Others admitted that *they* were the disinterested ones. One student who connected closely with her gathering peers explained, "I had no interest in connecting with people online. I don't really have time" (Gabrielle). Another's needs for support were met elsewhere: "I felt like the group gathering . . . helped me the most because I had [relationships] there, and I didn't feel like I also needed it online" (Victoria). Cultivating the interest and skills for developing online relationships could have enriched their later online university experiences, as they would be their main source of peer academic interactions after completing the program.

Organizing theme 3.2: Discussion boards feel like busy work. Discussion boards were the primary vehicle for online student interaction with their peers. Many found discussion boards to be frustrating and unnecessary (n=10) but some students did find value in them (n=4). A response from one student was typical of most impressions.

> The discussion boards were the worst part of the class. They were awful.
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> Discussion boards were generally part of the grade, and you had to go post
>
> something . . . and then reply to other people's posts. When your post is a

sentence long, how do you reply to that and make it effective to get to know

anybody else? (Catherine).

A required quantity of posts seemed to contribute to an overall lower quality of

discussion boards. Some respondents shared that they or other students would share short,

shallow posts that did not contribute to learning or relationships. Focusing on assigning and

grading quality vs. quantity of posts could incentivize more meaningful posts and support better

discussion. Some students attributed their problems with discussion boards to a psychological

distance from their peers, feeling it stunted any relationship growth, "because there's a certain

level of anonymity . . . you're not really getting to know anyone" (Leah). Providing

opportunities for students to connect, such as smaller discussion groups or early video postings

might alleviate some of this transactional distance. Students looking for a personal connection

with their online peers via a discussion board were often disappointed.

There was a smaller group of students that enjoyed discussion boards and felt they

benefited from them. One noted that, "Sometimes when you'd write stuff the insights that they

would write back would help you understand whatever you were studying even more" (Miriam).

Another appreciated the "incredible, exquisite" (Emma) things that others shared. These

students still did not report any personal connections with their peers on discussion boards. It

seems that focusing on the content of the board and the insightful things that their peers

sometimes shared created a more positive outlook on the boards. If the purpose of discussion

boards is to make connections between learners, they seem to be failing in many cases. If the

purpose is something else, perhaps academic collaboration, many appear to be falling short

because students do not want to post, and they put in only enough effort to complete their

assignment. We need to clarify the purpose of these boards, design them to that end, and share

that goal with students in order to encourage them to engage in and benefit from the discussion boards.

Global Theme 4: "We Love you…We're Here for you" — In-Person Gathering Peer Relationships are Deep and Meaningful

Students almost always related deeply and meaningfully with gathering peers. They supported one another academically and emotionally through the program. Two central organizing themes related to relationships with gathering peers emerged from the interviews. These themes address how receiving academic help and developing emotional closeness supported the development of student-peer relationships.

Organizing theme 4.1: Academic help increases persistence. Helping one another academically was an important part of almost all (n=11) in-person peer relationships. One older student relied academically on her gathering friends in order to succeed:

It was a struggle, but I had so many people encouraging me on. . . . They were so

supportive. I had a couple of them who stayed behind or came early a couple

times to help me. . . . I could not have made it without them (Deborah).

Several students shared that people came early, stayed late, or gave up their class time to help others. One noticed that a member of her gathering needed extra help with her English paper, so she "didn't have anybody peer edit [her own paper]" and instead "stayed with [the struggling peer] the whole [peer review] time" (Jessica) to help her. Another had a friend meet "an hour earlier so that he could train us [on a math assignment]" (Julia). Students who understood sought out those who didn't: "We'd just be like, 'Okay, who needs help?'" (Tarah).

Most students could have persisted without such help, but for those few who were in an especially vulnerable position, support from their peers made a significant difference. Only one

of our respondents fell into this category, but others mentioned members of their gathering groups who they or others were able to assist academically and who may not have been able to complete the program otherwise. This is intriguing because moving at a pace that does not leave too many people behind or frustrating those who are ahead is a difficult balance. Respondents here talked about helping their peers happily and of their own accord. Perhaps because of the relationships they had built, they were willing to sacrifice their time and energy more readily.

Organizing theme 4.2: Emotional closeness fosters self-efficacy. Most students developed very close, personal relationships with people in their gathering group (n=11). They characterized the gathering group, including facilitators with words like "family," "love," and "unity." Participants felt "safe" sharing things that were "very personal" to them and became "very close" (Victoria) in their gatherings. Students became comfortable talking about their lives outside of the class. One student shared about a peer who "would come in crying some days. . . . Even if she didn't wanna talk, we'd be like, 'We love you, ya' know, we're here for you'" (Jessica). Others connected over their shared hopes: "It was just one of those moments where you both were like, 'We are going to do this! We can do this!' It was encouraging each other and talking with one another about our strengths and our weaknesses and going forward with the. . .program" (Grace). Connecting with someone in a similar situation helped students feel supported and gave them self-confidence.

At the time of the first interview, during the early part of students' first semester of the online university learning, a number of students maintained their relationships with their gathering peers after the course ended. There was no official structure, so everything was organized by the students themselves or their facilitators. They reported Facebook pages where they "rally around" (Catherine) people who are discouraged, arrange potlucks, and "text a lot"

(Julia). One student described meeting a peer again: "It was literally like seeing my brother. It was like meeting my family again. And it was just joyful. . . . there is just a common eternal joy that we have engaged. It is powerful" (Julia). Another student and her peer "adopted" one another into family-like relationships: "She's become [my son's] grandma. My husband had surgery a couple weeks ago and she took him during the surgery for us and just had him the whole day. . . . She'll message me and say, 'We're missing James, we need to have him'" (Catherine). These students found their connections so meaningful that they strove to continue them on their own and have felt enduring emotional closeness as a result.

Comparison of Peer Relationships and Engagement

The interactions and relationships that students reported with online and in-person peers were vastly different. Because the online discussion boards serve a role that parallels the in-person gathering meetings in their respective contexts, that of interacting with one's peers, discussion boards may seem even less appealing in comparison. Those that looked at their discussion boards as a place for social interactions tended to be disappointed, while those expecting academic insight were more positive. Perhaps students' needs for a connection can be met in separate, distinct ways by peers in-person and online. Discussion boards with energetic responses seemed to promote engagement. One student noted:

> When I feel like other people are really contributing and providing a real opportunity to discuss something, that encourages me to want to participate. When I go through the effort, when I post something and someone's [just] like "good job," that makes me not want to engage (Aria).

Students had generally agreeable interactions with their online peers, but they paled in comparison to the strong, deep, impactful relationships almost all of them developed with their

peers in the in-person gathering. Students felt that these relationships helped them to succeed

academically and persevere emotionally through a difficult educational undertaking. "We always

came out renewed and ready to tackle another week, because you were around everyone. . . . It

just was like a family. . . . I just felt like 'I've got this' because you have people there to

encourage you" (Tarah). Students reported enhanced engagement because of these strong

relationships. While they might have done well without the support, they felt it made a big

difference. A typical response was, "I would have [succeeded either way], but I would not have

succeeded in any stretch of the imagination the way I did without the Thursday gathering"

(Julia).

     Several students reported that supportive relationships helped people persist in their

learning: "I know that some people in my class were thinking of dropping out in the middle of

[the program], but because of the group and because they're like 'I can't give up the group

because of my friends are there, and they ended up finishing" (Victoria). Some students felt that

their gathering relationships helped keep them enrolled and engaged in the program. One

student explained, "Every time I was done with the gathering I would come away feeling

renewed and supported and re-energized to finish out that week. Those relationships really

helped to keep me going through the full program" (Leah).

     Many students also banded together to encourage others. One explained that after losing

people during the year and facing a difficult last term that was "hard to push through" they

decided, "Nobody else is allowed to drop. We are done with this business, we're finishing with

this group, no one can leave." They "had to talk a few people off of the edge, but we did it, and

had we not had that group, they wouldn't have stayed" (Catherine). Respondents felt that their

relationships with their gathering peers were a powerful strength for keeping people engaged and persisting.

After a year in the program our respondents matriculated into the online university and began fully online learning. They no longer had the structure of a weekly gathering and were in online courses with traditional students. In a second interview, conducted near the end of each student's first semester at the online university, we asked participants to reflect on their experience in the online university, the relationships they formed with those in various roles, and the effects of those relationships on their engagement we identified several themes and sub-themes (Figure 3.4).

Figure 3.4. Global and organizing themes from research question 2.

Global Theme 5: "Very Interactive" vs. "Rather Unapproachable" — Fully Online Course Instructor Relationships Guide the Student Experience

Instructors are a student's first contact with their online university course. Some instructors choose to be very involved with their students while others are more distant. Two major organizing themes related to relationships with online instructors at the online university emerged from the interviews. These themes address how the presence or lack of academic involvement and emotional understanding influenced the development of instructor-student relationships and permeated the entire course experience. The interactions and relationships that

participants had with online course instructors after their transition to the online university were not as rich as those while they were in the program and may have stood out more negatively without gathering support to fill in the gaps.

Organizing theme 5.1: Academic involvement improves instructor presence. The responses we received about instructor involvement were split, with half reporting an interested instructor (n=6) and half reporting the opposite (n=6). One student explained that her teacher was "very interactive" on their discussion board. "He'll make a post and people will respond, and then he'll respond to them and have a discussion" (Victoria). This student felt that her instructor was participating in her learning. Another student had an instructor that informed them that because of technology issues early in the semester most of the time he had allotted for the course was used up. This made him feel "rather unapproachable" (Julia). This drove the student to look elsewhere for help she needed in the course and receive less support than she needed to succeed. Feedback from her instructors and feeling like they were paying attention to her work affected one student's engagement in her courses. "I feel so much less motivated to do really good work when I know that he doesn't care, and I know that he doesn't read it, so it feels kind of pointless to me. . . .We're all just on our own" (Emma). It was more difficult for this student to put effort into assignments and engage in a course when it seemed that her teacher did not recognize her investment.

Descriptions of fully online instructors' academic involvement were much more mixed than the online instructors of the program courses. It is possible that because students were now in classes with traditional students who instructors do not need extra support, instructor investment was lower. For most students while this is discouraging it will not end their

academic pursuits, but for those who need the most help, an important reason for the program, it can be a bigger issue.

      Organizing theme 5.2: Lack of emotional understanding discourages effort. Few (n=3) students reported any emotional connection with their fully online instructors. One participant reported how her instructors are "compassionate and understanding" and "want[s] you to succeed" (Victoria). When her teacher reached out to her about a lost assignment, she "loved" that he was "checking up on" her. The other two students who described an emotional dimension to their fully online instructor relationship had been stung by an abrupt, unhelpful instructor. "I just don't like his responses. So, I will go other routes to find the answers that I need" (Julia). Another student who struggled with adjusting to some of the online technology she needed to use in her course had a particularly painful experience. During a very busy time it was "craziness here," so she wrote her teacher a note:

> I just said, "I'm sorry, I just can't get to that assignment. I've tried. I've stayed
>
> up late, I got up early, I just can't get it all done." She said that I needed to budget
>
> my time to be able to take on all these responsibilities.… She said, "When I was a
>
> student … I was working all Thanksgiving Day on homework." . . . She was so
>
> unsympathetic that I just said, "I don't care if I hand an assignment in. I'm doing
>
> the best I can, and if that's not good enough, too bad." So that was one of my
>
> assignments that I didn't hand in that week (Deborah).

While instructors cannot always be flexible with assignments and deadlines, this student experienced a precipitous drop in her engagement when she did not receive the acknowledgement of her struggles that she was hoping for from her instructor. For someone who was already struggling, her instructor's abrupt, unconcerned response influenced her to give

up on an assignment she had previously been working hard to complete. A majority of students might overlook this kind of response and continue on, but for students like this one who are already struggling, such lack of emotional understanding can debilitate tenuous self-confidence and engagement.

Global Theme 6: "Let Their Personalities Show" vs. "You're Waiting for Somebody to Reply" — Fully Online Course Peer Relationships are Negligible

Students in the fully online courses continued to interact with their peers primarily via discussion boards. After transitioning to the online university, participants did experience a wider variety of interactions. We identified two important organizing themes related to relationships with online peers at the online university from the interviews. These themes address how the interactions students had with their peers, via discussion board and in other types of interactions curated by their instructors or themselves, supported the development of student-peer relationships.

Organizing theme 6.1: Discussion boards are more effective when relevant. Overall, students had mixed feelings about discussion boards in the fully online class, with slightly more positive (n=6) than negative (n=5). This may have something to do with the prominence of discussion boards in their experience. As in the earlier online classes, respondents continued to interact with their online peers mostly through discussion boards. The difference in the fully online model is that there was no in-person gathering to allow students to form relationships with peers in-person. The online peers provided the only possibility for interaction and may therefore have received more attention from students than before. Some instructors put their students into smaller discussion groups which allowed them to interact more with the same people. A student in such a course had group members who "stand out" because they "let their personalities show

in their posts" (Victoria). Students also shared stories in a family history class and gave

feedback on assignments in a coding class via the discussion boards. Focusing a discussion

board on a concrete assignment and putting students in smaller groups seems to encourage them

to interact more and to have relevant conversations.

Timeliness was also a concern. "You don't have someone to ask questions to

immediately. You have a discussion board." If you have a problem, "you're waiting for

somebody to reply" (Catherine), which can make it difficult to complete assignments on time.

Feeling like a helpful reply may or may not come in time or at all made discussion boards feel

less useful to some students. After having regular meetings and easier access to help from their

in-person peers during the program, students struggled with the delay in getting answers to their

questions online. In contrast to the strong influence of online instructor relationships,

respondents did not feel that their peer relationships, or lack thereof, were of much consequence.

This may be an untapped resource of support for students online.

Organizing theme 6.2: Other interactions provide learners with opportunities to

connect. Several students interacted with their peers in many other ways that were somewhat

unique to each course and student (n=6). One teacher had "connect sessions" in live "video chat

rooms" so that learners "can see the videos from other students." This allowed people to "have

conversations" and "teach each other" (Victoria). Others assigned students to peer-review

assignments and complete projects in groups, with mixed success. One student was the

beneficiary of another student's reaching out to her after a class activity: "She said, 'Look. I

know how to do this. You looked so upset. Let's figure this out.' So, she and I have emailed,

and she has been a great resource" (Julia). Another made a connection with someone in her

online class who also happened to live in her neighborhood. They got together and helped each

other. She feels "it wouldn't have been the same with someone online because the most that we'd have is like a chat or a phone call" (Catherine). These opportunities were dispersed over several classes, and for some, making an out-of-class connection might not have been possible. However, they are promising examples of ways that online courses can be designed to allow students to connect with and help one another. One student missed the gatherings more than the rest, because she had found so much support and welcome there that she was struggling to do without it in her online class:

> I was thinking the other night—if only I could have a gathering!. . . I would love
> to be able to talk to someone about this. . . . [My gathering group members are]
> the sweetest and nicest people. And they didn't care that I was older than them . .
> . I did not feel inhibited to ask them for help. Whereas now I feel so embarrassed.
> . . . I mean if somebody says something that is a little bit negative or bad, I am not
> calling them again (Deborah).

Most students were able to continue on in their online program without gathering support. Others maintained their connections without an arranged structure. Those who cannot may struggle greatly with the loss of their in-person groups if their online instructors and peers are not able to fill that gap.

Engagement Post-Transition

Most people did not note a difference in their engagement level overall. One student who had a common experience explained that matriculating to the university "was the end goal. . . . I'm continually working on that. . . . I feel motivated to finish my degree" (Gabrielle). They did, however, feel a difference in their relationships. "It

wasn't the same community support as [during the program], but I still like the classes

and stuff like that" (Miriam). One student explained:

> Engagement in the classes are [sic] totally different because you're engaged with
> the other people. [When you have a gathering,] you still feel like you're part of
> the class. . . . I wouldn't really have any personal connection with anyone in my
> [online] class. The engagement in the [online] class is definitely different
> (Catherine).

The students who successfully completed the year of the program with high enough

grades to enroll in the online university are likely those with a goal and intrinsic motivation to

achieve it. They are less likely to be impeded in their pursuit of their degree by changing

external factors. They do, however, notice these changes and may be affected in more subtle,

emotional ways that could influence their overall engagement. Changes that are subtle for some

can be catastrophic for others who are embarking on higher education with a more tenuous

foundation.

<h2 style="text-align:center">Future Research and Conclusion</h2>

Student engagement is an important element in student success and experience (Sinatra,

Heddy, & Lombardi, 2015). In this research we have qualitatively explored the relationships that

form students' academic communities of engagement and how they influence students'

perceptions of their engagement in blended and online contexts. Our findings suggest that in-

person, human relationships are more likely to develop and have the ability to bolster perceived

student engagement than the support offered in an online course community. There are

fundamental differences between relationships in-person and relationships online. We can learn

from successes in the in-person context as we strive to improve the online learning experience,

while remembering that they are unique and require unique interventions (Graham, 2006; Summers, Waigandt, & Whittaker, 2005). Each context has its own specific strengths and weaknesses, even in the possibilities for students to form relationships with others (Meyer, 2003; Tutty & Klein, 2008). The possibilities that each experience presents should be harnessed to create an improved learning experience for students.

Our results suggest that giving and receiving academic and emotional support builds relationships in the in-person space. In-person relationships may be developed more naturally and could hold more weight than online relationships (Cummings, Butler, & Kraut, 2002; Muilenburg & Berge, 2005). Perhaps, however, these types of interactions can also promote relationships online. We also see that receiving meaningful feedback and genuine understanding from instructors and higher-fidelity interactions with peers helps relationships grow in the online course space (Borup, West, Thomas, & Graham, 2014; Falloon, 2011; Griffiths & Graham, 2009). Expanding these types of interactions may also further online course relationships.

Researchers in the K-12 sphere use care as one way to understand emotional relationships between learners and teachers (Noddings, 2013). One characteristic of teacher-student relationships marked by care can be instructors providing opportunities for students to, in turn, care for their peers (Borup, Graham, & Velasquez, 2013). While care research tends to concentrate on younger learners, these findings suggest that a similar phenomenon is occurring with adult learners. Care might be particularly important in situations like this program in which learners commonly come from at-risk groups and have less experience with education than traditional students. Emotional support was crucial to our participants in spite of, or maybe because of, the fact that it was not an official expectation of the program. As something more

natural and spontaneous, emotional support might be able to be developed even further to support student engagement.

We also found in this study that instructors and peers supported students in distinct ways. Scholars who have researched K-12 students have discussed the unique roles that teachers, peers, and parents adopt as they support learners (Furrer, Skinner, & Pitzer, 2014). These distinct roles influence student engagement in particular ways (Furrer & Skinner, 2003). The Adolescent Community of Engagement (ACE) suggested by Borup, West, Graham, and Davies (2014) provides a framework to understand how teachers, peers, and parents can promote student engagement for younger online students.

Adolescent learners do have different requirements for their parents, teachers, and peers than adult learners do. While parents and other authority figures support adult learners, their part is often much smaller than it would be with an adolescent student. On the other hand, peers can be more of an influence for adults because these peers are also adults and have more opportunities and capabilities. Though the ACE framework was created for younger learners, because of the prominent roles of interactions and relationships that form a community of academic engagement for adult learners may also have implications for students in university contexts.

Instructors and designers should understand that students in this program include a vulnerable population. These are students that have not had the opportunity for higher education or not been successful in previous attempts and may be grappling with more road-blocks than the average traditional student. While these students are a diverse group and many could succeed on their own without much structural support, there are also many who cannot. Further, even those who would persist and complete their course of study report a more fulfilling and enjoyable

experience when they receive the academic and emotional support they need (Leighton & Bustos Gómez, 2018; Zapf, 2008).

Stronger relationships translated to higher engagement and enjoyment in the in-person gatherings and online courses. As students transitioned to a fully online model, our participants perceived that they were able to maintain their engagement. They did, however, report a significant change in their relationships, which in some cases did threaten their engagement. In the fully online learning experience there may be space to explore the possibilities of more high-fidelity, asynchronous interactions like video (Borup, West, & Graham, 2012; Griffiths & Graham, 2009). These learning experiences may increase connections between students and their instructors and peers while maintaining the flexibility of online learning. Another possibility is to explore the possibility of implementing some amount of synchronous connection. Even a small amount of synchronous time early on might prime students to develop relationships that they may be able to carry over to the lower fidelity and asynchronous interactions like discussion boards. Further, if students have some in-person peers in their online classes they may be encouraged to further expand their relationships in the online space. Practice connecting online during the program can help students develop the skills to create and maintain online relationships that will serve them as they enter fully online learning.

This research was limited by the difficulties of sampling in qualitative research. Because we had a small sample, we did not capture the broader range of student experiences. Future research should attempt to capture a wider range of student demographics and experience. To answer our specific questions about the differences between the blended and fully online experiences, we sampled people at the end of their year in the program, which removed from our research people who did not remain in the program for the entire year. Future research should

explore the student experience earlier in the program to see how much time affects relationship growth and if relationships are connected to attrition for those most likely to drop out. This would also allow for the possibility of research which includes people with more varied levels of engagement. This study was also limited demographically because we were only able to interview those who volunteered to participate. Future research should take in more varied demographics. Because of the size of our sample and the limitations of students who were willing to be interviewed all but one of our participants was female. We also sampled from a single region in the Intermountain West while the program serves students worldwide. Future research should explore student experience in other regions. Participants shared several interesting strategies that improved their online course experience. Future research should delve deeper into those interventions and their influence on student engagement.

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DISSERTATION CONCLUSION

This research explored, compared, and conceptualized academic communities of engagement, the relationships that they consist of, and their effects on students' perceptions of their engagement. It fills an important gap in our understanding of the effects of community and relationships on learning in online and blended contexts.

The first article reviewed relevant literature about interactions, relationships, and communities in education, specifically online and blended contexts, and their connections to student engagement. Interactions, relationships, and community are linked to one another and support student engagement. The second article focused quantitatively on the relationships that form students' academic communities of engagement with online and in person instructors and peers, family, friends etc. and how they influenced students' perceptions of their engagement. The support provided by the in-person community is significantly higher than that provided online ($p < 0.001$). Support also has a significant impact on perceived student engagement ($p < 0.001$). The third article qualitatively examined students' supportive academic relationships and their influence on student engagement. In this case also, students report more supportive relationships with their in-person communities and higher engagement there.

Supportive interactions, relationships, and community promote higher student engagement. Such connections can be forged online but are more likely to exist in-person. Supportive communities and the interactions and relationships they encompass should be fostered in learning environments, be they in-person, online, or blended, in order to encourage improved student engagement.

This study informs future research that will focus more deeply on these concepts and provide more generalizable findings. As there are clear trends in the quantitative and qualitative

findings, future research should test them with larger sample sizes and/or deeper and more longitudinal qualitative measures. Further statistical research should employ a more robust collection of multiple items to better measure engagement itself rather than student perceptions of it.

Further quantitative research should include other factors, such as course design and student characteristics, to form a more complete understanding of student experiences and better model how relationships contribute to student engagement in the presence of other variables. Future research should take in more varied student demographics to include more male students, consider previous learning experiences, and study learners around the world. It should also consider other phases and facets of the student experience, such as the beginning semester of the program, to see if time spent together influences relationship formation and if relationships are tied to drop-out rates. This would also allow researchers to include participants with more varied levels of engagement and learn about some before they drop-out of the program.

Interview participants described a number of online activities that improved their experiences in their online courses. Future research should look more closely at these facets of course design and their effect on student engagement. We have focused here on the student experience. Future research should also explore the experiences that instructors and facilitators have in forming relationships with their students to understand better the role the instructor perspective plays in the learning experience and on student engagement, as well as on the satisfaction of the instructor.

Our goal was to provide a foundation and basic understanding of communities and relationships in education, what they are like, and how they can influence student engagement. This will allow further research to test these findings on a larger audience and provide more

generalizable suggestions for harnessing the power of community and relationships for the improvement of the learning experience.

APPENDIX

Survey Instrument

Academic communities of engagement

How engaging were the following experiences?

	Not At All Engaging 0	1	2	Moderately Engaging 3	4	5	Very Engaging 6	7	Extremely Engaging 8
Current Online Course	o	o	o	o	o	o	o	o	o
Gathering Meetings	o	o	o	o	o	o	o	o	o

How enjoyable were the following experiences?

	Not At All Enjoyable 0	1	2	Moderately Enjoyable 3	4	5	Very Enjoyable 6	7	Extremely Enjoyable 8
Current Online Course	o	o	o	o	o	o	o	o	o
Gathering Meetings	o	o	o	o	o	o	o	o	o

List the names of up to 5 current online peers, and 5 gathering peers that you have interacted with related to [the program] (you can look them up if you would like).

	Current Online Course	Gathering Meetings

	Name (Doesn't need to be full name - just what you call them or initials.)	Name (Doesn't need to be full name - just what you call them or initials.)
Peer		
Peer		
Peer		
Peer		
Peer		

List the names of up to 5 others who are not in [the program] (e.g. friends, family members, ward members, institute or religion class peers and instructors) that you have interacted with related to [the program]. This could be anyone who has helped or encouraged you as you've participated in [the program].

	Name	Relationship

	(Doesn't need to be full name - just what you call them or initials.)	(Like spouse, sibling, bishop)
Other Person		
Other Person		
Other Person		
Other Person		
Other Person		

Rate the **level of emotional support** (like encouragement, praise, caring) you receive from each person. **Online Course Members**

	Low or None 0	1	Medium 2	3	High 4	5	Very High 6
Current Online Teacher	o	o	o	o	o	o	o
${PName%231/ChoiceTextEntryValue/3/1}	o	o	o	o	o	o	o

	Low or None 0	1	Medium 2	3	High 4	5	Very High 6
${PName%231/ChoiceTextEntryValue/4/1}	o	o	o	o	o	o	o
${PName%231/ChoiceTextEntryValue/5/1}	o	o	o	o	o	o	o
${PName%231/ChoiceTextEntryValue/6/1}	o	o	o	o	o	o	o
${PName%231/ChoiceTextEntryValue/7/1}	o	o	o	o	o	o	o

Gathering Members

(For missionaries, you decide which is 1 and which is 2)

	Low or None 0	1	Medium 2	3	High 4	5	Very High 6
Current [Facilitator] 1	o	o	o	o	o	o	o
Current [Facilitator] 2	o	o	o	o	o	o	o
${PName%232/ChoiceTextEntryValue/3/1}	o	o	o	o	o	o	o
${PName%232/ChoiceTextEntryValue/4/1}	o	o	o	o	o	o	o
${PName%232/ChoiceText	o	o	o	o	o	o	o

	Low or None 0	1	Medium 2	3	High 4	5	Very High 6
EntryValue/5/1}							
${PName%232/ChoiceTextEntryValue/6/1}	o	o	o	o	o	o	o
${PName%232/ChoiceTextEntryValue/7/1}	o	o	o	o	o	o	o

Family/Friends/etc.

	Low or None 0	1	Medium 2	3	High 4	5	Very High 6
${FF%231/ChoiceTextEntryValue/1/1}	o	o	o	o	o	o	o
${FF%231/ChoiceTextEntryValue/2/1}	o	o	o	o	o	o	o
${FF%231/ChoiceTextEntryValue/3/1}	o	o	o	o	o	o	o
${FF%231/ChoiceTextEntryValue/4/1}	o	o	o	o	o	o	o
${FF%231/ChoiceTextEntryValue/5/1}	o	o	o	o	o	o	o

Rate the **level of academic support** (like help with assignments and understanding concepts) you receive from each person. **Online Course Members**

	Low or None		Medium		High		Very High
	0	1	2	3	4	5	6
Current Online Instructor	o	o	o	o	o	o	o
${PName%231/ChoiceTextEntryValue/3/1}	o	o	o	o	o	o	o
${PName%231/ChoiceTextEntryValue/4/1}	o	o	o	o	o	o	o
${PName%231/ChoiceTextEntryValue/5/1}	o	o	o	o	o	o	o
${PName%231/ChoiceTextEntryValue/6/1}	o	o	o	o	o	o	o
${PName%231/ChoiceTextEntryValue/7/1}	o	o	o	o	o	o	o

Gathering Members (For [facilitators], you decide which is 1 and which is 2)

	Low or None		Medium		High		Very High
	0	1	2	3	4	5	6
Current [Facilitator] 1	o	o	o	o	o	o	o

	0	1	2	3	4	5	6
Current [Facilitator] 2	o	o	o	o	o	o	o
${PName%232/ChoiceTextEntryValue/3/1}	o	o	o	o	o	o	o
${PName%232/ChoiceTextEntryValue/4/1}	o	o	o	o	o	o	o
${PName%232/ChoiceTextEntryValue/5/1}	o	o	o	o	o	o	o
${PName%232/ChoiceTextEntryValue/6/1}		o		o	o	o	o
${PName%232/ChoiceTextEntryValue/7/1}		o		o	o	o	o

Family/Friends/etc.

	Low or None 0	1	Medium 2	3	High 4	5	Very High 6
${FF%231/ChoiceTextEntryValue/1/1}	o	o	o	o	o	o	o
${FF%231/ChoiceTextEntryValue/2/1}	o	o	o	o	o	o	o

${FF%231/Ch oiceTextEntry Value/3/1}	o	o	o	o	o	o	o
${FF%231/Ch oiceTextEntry Value/4/1}	o	o	o	o	o	o	o
${FF%231/Ch oiceTextEntry Value/5/1}	o	o	o	o	o	o	o

Is there anything else you would like to include about your Online Course relationships and/or engagement?

_____

_____

Is there anything else you would like to include about your Gathering relationships and/or engagement?

_____

_____

Is there anything else you would like to include about your experience in [the program]?

Interview Protocols

Interview 1:
- Icebreakers
    - How do you feel about the people in your online class in general?
    - How do you feel about the people in your gathering in general?
        - *How do you feel when you meet together?*
- Instructors/Peers/Friends and Family
    - Community members
        - Specific People (1-2 per group, with priority to Gathering and Online course):
            - You listed X, is s/he the person you felt most supported by in X (gathering/online class)?
            - You rated your instructors/missionaries (online/gathering) X (high/low), why is that?
        - General Groups:
            - You didn't list anyone for X (group), did you not feel supported by any of them?
            - You listed several people/others in X (group), can you talk about how they supported you?
    - Questions (especially for specific people)
        - How did you first connect beyond just being in the same course?
            - *Prompt: Did you reach out, did the other person?*
        - How did the relationship develop?
            - *Prompt: Did you connect over an assignment, or find you had something in common?*
        - How does this person support you?
            - *Prompt: Care and friendship? Motivating and encouraging?*
            - *Prompt: Instructing and explaining concepts? Assignments?*
        - Does it affect your engagement, or commitment to [the program]?
            - *Do you feel more or less committed/motivated/competent/smart because of the way this person treats you?* **Don't forget Online!**
        - Does this relationship extend beyond the course? Do you still keep in touch?
            - *Prompt: Do you ever talk or email about your course during the week? Do you ever talk within or outside of the course about things that aren't related to [the program] like your family or hobbies?*
        - Do you feel that you have adequate support now that you are in [online university]?

Interview 2:
- How would you describe your current [online university] experience as a whole?
- Transition Experience
    - Did your experience in [the program] affect your decision to transition to [online university]?

- *Prompt: Was it always your plan to transition to [online university]? Was there ever a time that you considered not enrolling in [online university]?*
  - o Has anything been difficult about the transition? Do you have any suggestions about how it could the transition be improved?
  - o Do you feel more or less supported overall now than during [the program]?
    - *Prompt: Are you getting the instruction and help you need/are used to? Are you getting the encouragement and motivation you need/are used to?*
  - o Do you think your engagement in your online classes has changed since transitioning to [online university]?
    - *Do you feel more or less committed/motivated/competent/capable now than you did when you were in [the program]?*
- Relationships
  - o Are you still in touch with anyone from [the program]?
    - *Prompt: Your teachers and peers online? Your [facilitators] and peers in the gathering? Those you felt supported you during [the program]?*
    - If so, what is your relationship like now? How does it compare to how it was before?
      - How does this person support you?
        - o *Prompt: Caring and friendship? Motivating and encouraging?*
        - o *Prompt: Instructing and explaining concepts? Helping with assignments?*
    - If not, why not? Would you like to be?
      - *Prompt: Have you reached out to anyone? Has anyone reached out to you?*
  - o Have your relationships with people in your current online classes or your friends and family relationships changed since [the program] ended?
    - *Prompt: Do you rely more or less on them for support in [online university] than you did when you were in [the program]?*
  - o Do you feel like the gathering prepared you for your [online university] experience?
  - o How do you feel about the people in your online courses?