

Student Interactions in Edmodo Versus Facebook

by

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ABSTRACT

This study describes student interactions in the academic social network site *Edmodo* versus student interactions in *Facebook*. This qualitative case study relies upon four high school juniors enrolled in Advanced Placement Language and Composition who use *Edmodo* to complete assignments for their English class. Their experiences were gathered in an attempt to describe specific experiences in a complex system. Students were selected using an Internet Connectedness Index survey. Using a Virtual Community of Practice framework, students were asked about their experiences in *Edmodo*. This study concludes that *Edmodo* and *Facebook* can be compared in three categories: accessibility, functionality, and environment. Unlike *Facebook*, which students access regularly, students access *Edmodo* only to fulfill the teacher's participation expectations for the specific grade they wish to receive. Additionally, students appreciated the convenience of using *Edmodo* to complete assignments. The functionality of *Edmodo* is quite similar in layout and appearance to *Facebook*, yet students were unaware of the media sharing capability, wished for private messaging options, and desired the ability to tag peers for direct comment using the @ sign, all options that are available in *Facebook*. Students felt the environment in *Edmodo* could best be characterized as intellectual and academic, which some mentioned might best be used with honors or AP students. A surprising benefit of *Edmodo* is the lack of social cues enable students to feel free of judgment when composing writing. Some felt this allowed students to know their classmates better and share their true personae free from judgment of classmates. As a result of the case studies of four students, this study seeks to illustrate how students interact in *Edmodo* versus

Facebook to provide a robust image of the academic social network site for teachers seeking to implement educational technology in their classes.

To my PopPop, who taught me that education matters;

To my amazing mom, who taught me that smart girls rule, and my loving dad,
who taught me the value of hard work;

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Chapter 1 - Introduction

Over 150 years ago, students could be observed interacting inside a one room school house. At the turn of the twentieth century, the buildings housing students began to expand and students could be observed interacting in more locations on a school campus (Tyack, 1974). Today on the campuses of American high schools, students interact in the quad between classes, in the cafeteria during lunch, at clubs or sporting events, or in the classroom. At the turn of the twenty-first century, students began to interact in other places beyond the brick-and-mortar walls of the school facility. Cyberspace offered students an additional location to build academic culture and interact to collaborate on school assignments.

With the development of the internet in the late 90s, students inhabited virtual spaces. The places where students worked together on curricular assignments were no longer limited by four walls, but involved online interactions as well. As the internet evolved, so did the spaces where teens could interact and the numbers of teens who interacted virtually increased. By 2006, 55% of teens aged 12-17 were using social networks and had created online profiles (Lenhart & Madden, 2007). “A social networking site is an online location where a user can create a profile and build a personal network that connects him or her to other users” (Lenhart & Madden, 2007, p. 1). The profile reveals a persona shared by the user while the network is those who the persona is shared with, meaning members of the community connected to the user. *Facebook*, and at the time of the Pew study, *MySpace*, are two notable social networking sites students utilize to manage their friendships with 48% of students visiting sites at

least once daily (Lenhart & Madden, 2007, p. 2). This study revealed how students were using social networks to curate their friendships in a virtual space.

The history of social network sites (SNS) spans approximately fifteen years. Beginning with Sixdegrees.com in 1997, the first five years of SNS growth saw Live Journal and Friendster providing online opportunities for friends to communicate virtually. These sites offered existing networks of friends to strengthen ties. In 2003, *LinkedIn* and MySpace provided virtual communities of people (professionals and musicians respectively) the opportunity to network with new members and expand. By 2005, *Facebook* offered a high school network version of its original university-only platform (boyd & Ellison, 2008). Within a year, the Pew Research Institute began studying the impact of SNS use on teens, yielding results that indicated that students were using these virtual spaces to socialize much in the same way they did in the courtyards, cafeterias, and classrooms of their high schools. “The social desire to share space and experiences with friends is supported now by a networked and digital media ecology that enables these fluid shifts in attention and copresence between online and offline contexts” (Horst, Herr-Stephenson, & Robinson, 2010, p. 50). Students’ educational interactions now occur in school, in the classroom and courtyard, and online in various digital environments including social network sites.

Since 2007, *Facebook* has eclipsed all others to become the SNS with the most users. Boasting 845 million global users as of 2012, *Facebook* is the most visited website on the Internet (Wilson, Gosling, & Graham, 2012, pg. 203). The growth in this specific SNS has provided social scientists with a virtual environment in which to study human behaviors. Furthermore, the last five years of studies about the SNS environment have

produced a range of literature specifically about students' use of *Facebook* for school. As student usage of the internet evolves and teachers' use of cyberspace expands, literature regarding students' use of *Facebook* becomes valuable in comparing how students use these environments for school, not simply to socialize with friends. A goal of this study is to compare literature regarding students' use of *Facebook* for academic pursuits with the academic social network site (ASNS) *Edmodo*.

Edmodo (www.Edmodo.com) is a free SNS offering a virtual environment where students and teachers can connect to network for curricular pursuits. Started in 2008 by two Chicago public school teachers, the primary goal of *Edmodo* was to provide a social network environment for teachers and students because popular social media sites such as *Facebook* and *Twitter* were blocked by their school district. By August of 2011, *Edmodo* counted 3 million users world-wide. The introductory materials to *Edmodo* state, "It's not a question of should we use social media in the classroom, but a question of how" (Giacomantonio, 2012). *Edmodo* is the designers' answer to this question.

Edmodo's objective is to provide free social learning to as many schools, teachers, and students as possible. In addition, *Edmodo* wants to make it safe and easy for students and teachers to connect with each other (Giacomantonio, 2012). Designed for educational use, *Edmodo* is considered an academic social network site (ASNS). The copious research on students' use of *Facebook* reveals that students are clearly using social media daily or multiple times daily for social and educational purposes. How does this compare to how students use the virtual environment provided in the ASNS *Edmodo* to interact with their peers to collaborate on curricular assignments? The purpose of this study is to add to the breadth of literature that exists about students' use of *Facebook* by comparing

it with how students build culture and community within *Edmodo* by collaborating to complete school assignments.

Overview of the Study

As a veteran language arts teacher at an affluent suburban high school, I continually tried to improve my instruction, seeking hours of professional development. Most professional development offered consisted of “best practices” in areas of content knowledge or delivery of instruction. When the integration of technology became a form of ‘best practice’, my interest was piqued. A colleague of mine considered himself an “educational technologist.” Interested in what this meant, I began talking to him about how he used technology in his classroom. He explained how he used various Google apps to organize student information, provide chat formats, and communicate with his students. He used Google voice, for example, so that students could text message questions or leave voicemails about assignments without knowing his actual phone number. It struck me that he was communicating with his students much in the same way that his students communicated with each other in cyberspace—what better “best practice” than meeting students where they are?

I knew that my students were more technologically savvy than I was, and I felt uncomfortable trying new avenues for learning that included technology. When asked by my educational technologist friend how I would classify myself in the realm of technology, I pondered my comfort level and responded that I was “tech-curious,” meaning that I had an overwhelming desire to learn more about how technology could transform my classroom into a more authentic 21st century learning environment. Truthfully, I was terrified that I lacked the knowledge necessary to use technology

effectively as an instructional tool, and I felt my students would discover this. Although quite comfortable with my own personal use of social networking, I lacked information about how students might use technology for school work. Knowing that their use of technology continued to increase for social pursuits, I began to try out various technologies for curricular purposes, such as using discussion boards for silent discussions rather than sheets of poster paper and markers. It was also during this time that my mother encouraged me to join *Facebook* to reconnect with my high school and college friends. I did not truly understand the reach that *Facebook* had into the teen culture until I joined it myself and watched as many people formerly of my social circles joined my online, virtual network on *Facebook*. I was equally uninformed where educational technology was concerned, and was thoroughly unaware how much interaction students had with each other outside of school in cyberspace. Furthermore, when I first heard of *Edmodo*, I was unsure about how to use it with my students to reinforce classroom curriculum in cyberspace.

Teachers are trying to harness the power of social network sites for use in education. Technology is becoming a component of teachers' pedagogy for engaging today's teenagers. *Edmodo* is one SNS that is purposefully designed for educational use. At the time my educational technologist friend recommended I augment my use of technology in my classroom, I was unaware that academic social network sites (ASNSs) existed. Even if I had known about *Edmodo*, my lack of knowledge about how students would use *Edmodo* to interact outside of the walls of my classroom may have prevented me from implementing it with my high school students. This research is a result of my

interest in how the interactions that students have on *Edmodo* compare with what the extensive research says about how students use *Facebook* for school work.

Ito (2010) studied how students and teachers barter with each other in the context of learning in the digital age. Ito notes how little research exists that addresses this struggle of meeting students where they are--with social networks intended for education. By looking closely at how the youth of today use social networks to interact with their peers in cyberspace and the social role that certain media allow in creating culture and community, she argues that “adults are important coparticipants in youth new media practices” (p. 7). Thus, knowing that teens are using social media frequently, teachers infusing their curriculum with the use of educational technology may seek out academic social networks assuming ASNSs are a virtual space where students are able to interact; however, very little research describes the interactions that actually takes place in cyberspace within ASNSs such as *Edmodo*. Scholarly literature lacks discussion of how students interact in academic social network sites which warrants a study that describes virtual spaces such as *Edmodo*. A comparison between interactions in *Edmodo* and those in *Facebook* will reveal how students use these environments to collaborate on assignments or build community amongst classmates.

When teachers use academic social network sites such as *Edmodo*, they may feel unsure about how students will interact there. They may have personal experiences using social media, but may not truly understand how students will interact in cyberspace when completing school work. Whatever educators may hope for in embracing tools like *Edmodo*, this study seeks to describe what the student interactions look like in *Edmodo* so

that teachers who choose academic social network sites for students to work with curriculum in cyberspace will have that information when planning its use.

This dissertation examines four junior level AP Literature students' interactions in *Edmodo*. The teacher requires students to interact academically in *Edmodo* to respond to class assignments the teacher posts, to provide feedback to their peers, to communicate with each other about school related topics, and to receive reminders from the teacher regarding assignments due in person in the classroom. The participants in this study were chosen based on their level of connectivity to the Internet. Interviews sought to chronicle how students interact in *Edmodo* to draw a comparison between these interactions and prior studies of students' interaction on *Facebook* for academic use. An analysis of the results may inform teachers seeking to use academic social network sites with their classes. The results will provide teachers a picture of student interactions in *Edmodo*. A robust description of how culture and community manifest in the ASNS will assist educators to make curricular decisions regarding the integration of the use of academic social network sites to support academic pursuits and reinforce curriculum.

Research Question

The purpose of this study is to build upon existing literature that details how students interact in cyberspace to complete school work. Specifically, this research study attempts to describe student interactions in *Edmodo*. Research clearly details how students interact in *Facebook* for academic purposes, but robust description of student interactions in *Edmodo* are lacking in contemporary literature. Since culture and community are created through student interactions, and interactions now occur often in

virtual spaces, a focused description of student interactions in *Edmodo* will inform teachers of how such ASNS will afford students' academic interactions in cyberspace.

Therefore, the research question addressed in this study is:

1. How do student interactions in *Edmodo* compare to how research indicates students interact on *Facebook*?

Significance of the Study

Considering the role that SNSs play in the lives of teenagers, it seems logical that ASNSs such as *Edmodo* will be used by high school teachers seeking to integrate more technology into their classes. This study seeks to describe the interactions amongst students in this virtual space to detail how student interactions in *Edmodo* impact culture and community. My findings will be specific to the small population, but may be generalizable to high school students who use *Edmodo* to interact for school assignments. The descriptions will allow teachers seeking more information about using technology, specifically the ASNS *Edmodo*, to understand what student interactions look like in the virtual space.

Limitations of the Study

This study is limited to one Arizona high school from a unified K-12 school district. From this school, two junior Advanced Placement (AP) Language and Composition classes yielded four students highly comfortable with technology for a multiple case study model. Between the months of February and May 2013, this study sought to gather qualitative data regarding these four students' use of *Edmodo* for educational purposes. The district is predominantly white, upper-middle class, and is still considered a hyper-growth district in comparison to other districts in the area that are

seeing declining enrollment. This presents as a limitation because the group, in general, is quite homogeneous, and will therefore only yield one glimpse of the cases studied. As members of a student body of 1600 students, the four students are juniors enrolled in AP Literature and Composition. The school they attend is six years old, and the classroom contains a document camera and Smart Board. Some classes on the campus have class sets of iPads, and there are numerous computer labs available for teachers to use. This study may not generalize to students who use other ASNSs or use *Edmodo* for courses other than those seeking to reinforce curriculum that differs from AP Language and Composition.

Definition of Terms and Abbreviations Used

Community of Practice (CoP): A group with similar interests committed to learning more about the topic by socially interacting with others with the same interest (Wenger, 1998). For the purpose of this study, this model will be applied to students who are practitioners in the study of language arts.

Virtual Community of Practice (VCoP): In contrast to a CoP, the learning of a virtual community of practice is not situated in public, face to face interactions. Rather, the social interaction occurs in a virtual environment such as a discussion board (Murillo, 2008) or other social network site.

Social Network Site (SNS): SNS will be defined as a site whose intention is to provide a platform for social presences through a chosen profile, with a list of users with a shared connection, and where the connections and interactions are transparent.

Interactions: Exchanges between students, collaboration towards a goal, practices engaged in while in any given environment.

Academic Social Network Site: A site, such as *Edmodo*, that uses components of social networking for academics.

Profile: Profiles, typically include descriptors such as age, location, interests, and an ‘about me’ section. Most sites also encourage users to upload a profile photo. Some sites allow users to enhance their profiles by adding multimedia content or modifying their profile’s look and feel. (boyd & Ellison, 2008, p. 213)

Notification: A “reminder [that] can be seen...on the right of the user’s homepage” (Hew, 2011, p. 663). In addition, in *Facebook* and *Edmodo*, notifications can be set up to arrive via email. Furthermore, certain smartphones offer push notifications that come to the home screen of the device.

Comment: Specific feedback to a post on a social network site.

Post: Items that appear on the wall or in the feed of users’ social network sites.

Response: Replying to a comment on a post in a social network.

Feed: In *Edmodo* and *Facebook*, the center column of the webpage that displays recent posts from users.

Tools: Features within a social network site that allow functionality of various features (posts, notifications, comments).

Wall: See also ‘feed’.

Chapter 2 - Literature Review

Introduction

This study seeks to describe student interactions in the academic social network site *Edmodo* in comparison to what research says about how students interact in *Facebook*. The purpose of this study is to add to the literature that discusses educational uses for social network sites by observing secondary students' interactions in *Edmodo*. Although much contemporary research about students' use of *Facebook* for academics is available, there is little to nothing in the research that specifically addresses students' interactions in *Edmodo*. This case study seeks to describe students' interaction in *Edmodo* and to compare those to the literature reviewed here regarding student use of *Facebook* for school. The research question addressed is:

1. How do students' interactions in *Edmodo* compare to how research indicates students interact on *Facebook*?

Need for Study

Educational technology is a broad terms that refers to electronic or digital tools educators use with students to enhance student learning. These tools range from computers to the internet. Recent trends in social media indicate more people are interacting via social media. "75% of Internet surfers used 'Social Media' in the second quarter of 2008 by joining social networks, reading blogs, or contributing reviews to shopping sites; this represents a significant rise from 56% in 2007" (Kaplan & Haenlein, 2010, p. 59). With three quarters of internet users joining social networks, these same platforms are emerging in the classroom for use with students. *Edmodo* is an academic social network site that students use on the internet to complete activities assigned by

teachers. Since there is little research for educators to reference when deciding to use ASNSs, this study is needed to describe student interactions in *Edmodo*.

Theoretical Framework

Constructivism is a theory for how knowledge is created. Vygotsky believed that the environment was as important as the interactions within the environment in the creation of meaning. In addition, Vygotsky recognized the importance of peer interaction throughout the learning process, especially where the peer interactions engaged students in problem solving (Jaramillo, 1996). For hundreds of years, these interactions occurred within the walls of the school building, in classrooms where students interacted in person, face-to-face. “Vygotsky’s version of constructivism, then, is a non-developmentary view of education whereby a child’s intellectual personality and socio-moral knowledge is ‘constructed’ by students internalizing concepts through self-discovery” (Jaramillo, 1996, p. 135). With the development of social network sites, the educational interactions that may have one time only taken place at school are now taking place anywhere, in online environments such as SNSs like *Facebook* and ASNSs like *Edmodo*. Ferreira (2012) notes, “Undoubtedly, technologies are becoming embedded in academic life but patterns of adoption are more complex and nuanced than polarized themes suggest...unless we consider academic culture we cannot fully capture the relationship of technologies to education” (p. 4). In looking at how students interact in ASNSs, a robust description of student interactions in *Edmodo* may contribute to the understanding of academic culture that extends outside of the school and into virtual spaces, which as Vygotsky noted, is a crucial component of the learning process. Rich description of student interactions in

Edmodo will reveal how the collaboration that occurs there impacts community amongst participants.

Review of Literature

Social Network Sites (SNS)

SNS are sites that have specific features that distinguish them from other types of social media such as blogs or shopping sites. On SNSs, users,

- (a) construct a public or semi-public profile within a bounded system, (b) articulate a list of other users with whom they share a connection, and (c) view and traverse their list of connections and those made by others within the system.

(boyd & Ellison, 2008, p. 211)

These components comprise the guidelines for consideration of some of the most popular social network sites such as *Facebook*. SNSs offer the ability for users to create a social presence without needing the physical space to do so. In addition, SNSs can be used effectively in educational environments (Greenhow, 2011). Social presence can be defined as the ability of two people to communicate in a given space (Kaplan & Haenlein, 2010). For the purposes of this study, a SNS will be defined as a site whose intention is to provide a platform for social presences through a chosen profile, with a list of users with a shared connection, and where the connections and interactions are transparent.

Research into SNSs has taken many directions. Conole et al. (2010) detail numerous frameworks used in the research of networked learning in the field of education. They explain various frameworks that are useful in understanding the nature of interactions in digital spaces such as SNS. Here, Wenger's Community of Practice

(CoP) framework is discussed (Wenger, 1998) as a way to examine networked learning. They note the CoP framework is valuable because it provides “a specific lens on practices, which enables us to view them and understand them in a particular way” (Conole et al., 2010, p. 121). Conole et al. (2010) used the CoP framework to classify the patterns of behavior of participants using *Cloudwork*, a social network site, for academic practice, specifically academic reflection. However, CoP was originally established to categorize learning processes within organizations. Although CoP’s focus is learner interactions, and this frame has been applied to various learning environments beyond organizations, it does not specifically address learning in a virtual or online context. Therefore, the CoP framework has further evolved to include communities of practice in virtual spaces.

Virtual Community of Practice (VCoP)

VCoP is an adaptation of Wenger’s (1998) Community of Practice framework that is specifically designed as a lens for use in virtual spaces such as SNS. Studies using CoP as a framework for analysis of virtual communities tended not to utilize all of the components of a CoP. VCoP “adopt Wenger’s framework and operationally define a virtual community of practice as an Internet-based collective that displays all constitutive dimensions identified by Wenger (1998)” (Murillo, 2008, p. 3). The areas that Wenger (1998) details include joint enterprise, mutual engagement, and shared repertoire.

Wenger’s CoP model originally detailed the failures of knowledge management scenarios that did not consider the social aspect of knowledge acquisition and focused too closely on the information. Because much research purports that networks established in person are stronger than those in virtual environments, CoP has generally not been applied to

virtual spaces. As such, the application of the VCoP model is selected as the lens with which to describe students' interactions in *Edmodo* versus *Facebook*. In looking at the comparison of these interactions, practices of students in virtual environments will be revealed. A rich description of these allow teachers to better understand how students will use cyberspace for academic purposes.

Virtual Communities of Practice categorize learning practices in cyberspace. *Edmodo* and *Facebook* are virtual environments in that they both provide spaces on the interwebs to create community through various types of interactions. In the VCoP framework, Murillo (2008) expands upon the CoP model of Wenger (1998) and Wenger, McDermott, and Snyder (2002) to include five areas of focus: Shared Repertoire, Joint Enterprise, Mutual Engagement, Community, and Learning Acquisition and Identity. Each of these areas classifies student interactions within a virtual learning context. The next section details the individual attributes of each of these components of VCoP as detailed by Murillo (2008).

- *Shared repertoire* provides tools to necessitate the accumulation of routines. Developing shared routines include high quality documents such as group information or FAQs.
- *Joint enterprise* includes the idea that there are on-topic and off-topic discussions and members within the group police discussions to ensure they remained focused and on-topic. This ensures highly focused discussion pertaining to an identifiable profession.
- *Mutual engagement* is described as “collaborative problem solving, debating professional issues or sharing domain-related information” (Murillo, 2008, p.

- 6). An exemplary VCoP includes frequent interaction and active participation by group members.
- *Community* explains that members know each other and develop a sense of community through interactions in the virtual space. The community must remain small enough to be considered a “mid-sized” group to allow interactions to foster an environment where conflict remains low while mutual ties are developed.
 - *Learning or identity acquisition* is best explained as new knowledge or skill gained by participation in the group.

Using this framework, it becomes possible to compare *Facebook* and *Edmodo* by using the communities of practice students lens to categorize and classify how students are interacting in each environment. Analyzing student interaction in these environments in each of the five VCoP areas delineates how community and culture are established in pursuit of academic activities. Murillo notes, “Blogs, wikis and social networking sites constitute potential platforms where distributed participants can sustain mutual engagement and eventually cohere into a community of practice” (2008, p. 27). At this time, research into the study of social network sites for use in schools has looked to environments such as *Facebook* because this is where students are for social reasons.

Halvorsen notes:

However, these participatory cultures have been studied almost entirely outside the context of formal schooling, setting up a dichotomy between the way we think about learning in classrooms and learning in participatory cultures, especially when it comes to technology use. (2011, p. 63)

Therefore, this study uses the VCoP lens to provide a framework for categorizing student practices in the ASNS *Edmodo* for comparison with what research says about how students interact in *Facebook* to complete school work. The use of the VCoP lens allows focus on the academic culture and community found within these sites.

One potential limitation to using the VCoP framework as a lens to analyze student interactions lies in the professional nature of CoP and VCoP. To operationalize the use of VCoP when looking at *Edmodo* and *Facebook*, it becomes necessary to focus the definition of SNS. Gunawardena et al. (2009) define them “as tools that facilitate collective intelligence through social negotiation when participants are engaged in a common goal or shared practice” (p. 6). Thus, the nature of what this study seeks to describe are student interactions in *Edmodo* in comparison to student interactions in *Facebook* for academic purposes. Using the VCoP framework, it becomes possible to categorize the interactions as components of VCoP. Wenger et al. (2002) defined CoP as “groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis” (2002, p. 4). Therefore, the topic in *Edmodo* may be different than the topic in *Facebook*, but the mutual engagement within each SNS allows for participants to develop community and culture based on their interactions in these spaces because of the common goal or shared practice while completing academic tasks. This research seeks to describe the nature of student interactions in *Edmodo* versus *Facebook* by using the VCoP model as a lens with which to categorize these interactions to provide a robust description about how students use these spaces for academic, providing educational professionals a glimpse into how the virtual spaces encompass academic culture.

Current Research Into the SNS *Facebook*

Current research in the SNS *Facebook* as used in educational contexts is quite extensive (see Figure1). Fewkes and McCabe (2012) state 73% of students use *Facebook* for educational purposes—meaning, not for purely social purposes; rather, students are using *Facebook* for school (p. 92). Research exists that addresses the frequency and quality of students' use of *Facebook*. Bicen and Cavus (2011) detail the tools used by students when spending time on *Facebook*. For example, students' use of *Facebook* varies with their attitudes regarding school (Koles & Nagy, 2012) or the negative connection between *Facebook* use and engagement in studies (Junco, 2012). In addition, extensive research demonstrates effects of *Facebook* usage and how students feel about the use of *Facebook*. Research indicates that students increase social capital and self-esteem when using *Facebook* (Ellison, Seinfeld, & Lampe, 2007) and that students' extroversion correlates to the self-presentation in their *Facebook* profiles. Additionally, since nearly three quarters of students use *Facebook* for educational purposes (Fewkes & McCabe, 2012), new research provides data showing the potential uses of social media in formal education (Halvorsen, 2011; Mazman & Usluel, 2010; Roblyer, McDaniel, Webb, Herman, & Witty, 2010; Stanciu, Mihai, & Aleca, 2012). Students who have high efficacy are likely to use *Facebook* to organize and collaborate on class assignments (Lampe, Wohn, Vitak, Ellison, & Wash, 2011) and such online collaborations are likely to translate to offline connections as well (Subrahmanyam, Reich, Waechter, & Espinoza, 2008). To build upon this breadth of research, this study seeks to compare the interactions of students using *Edmodo* with research regarding their interactions in *Facebook*;

however, at this time, there is little empirical evidence in existing literature about the academic social network site (ASNS) *Edmodo*.

Using the VCoP lens, empirical studies of *Facebook* can be initially categorized into one of five categories: Shared Repertoire, Joint Enterprise, Mutual Engagement, Community, and Learning and Identity Acquisition. To gather studies for inclusion in this literature review, the search term “social network sites” was initially used to search for peer reviewed journal articles using the ASU Library database of scholarly journals. Results from this search were included, even though they may have had a broader topic than *Facebook*, if the results included specific commentary regarding *Facebook*. Additional searches were conducted using the search terms “*Facebook*” and “*Facebook* in Education.” Studies included in this section represent empirical research whose results specifically addressed the interactions of secondary and university students using *Facebook* in education, in an educational context, or for any academic purpose.

Shared repertoire. Shared repertoire can be described as the accumulation of routines (Murillo, 2008). Wang, Woo, Quek, Yang, and Liu (2012) conducted an empirical study using students in a closed *Facebook* group. They note, “The participants agreed that the wall of the *Facebook* group provided a useful platform for sharing information and resources. They felt that the wall was similar to a notice board which updated them regularly on their classmates’ activities” (p. 433). The established routine sharing resources is one way students interact using *Facebook* for shared repertoire.

Joint enterprise. Joint enterprise is the notion that group members police the topics of discussions in a group to ensure that what is discussed is considered on topic (Murillo, 2008). By gathering data via an online survey, Roblyer et al. (2010) studied

how students communicate using *Facebook*. Their results “indicate that students communicate as much with *Facebook* as they do with technologies traditionally used in colleges (e.g. email)” (p. 138). Increased communication for educational purposes is the central notion of joint enterprise—that the members dictate what is appropriate to discuss. A problem in *Facebook* where joint enterprise is concerned seems to be that increased communication by group members does not guarantee an equal amount of participation by all group members. Baran (2010) conducted a study of 32 undergraduate students using *Facebook* for academic purposes while enrolled in a class. The results indicate that “[students] observed that nearly half of the class did not read all of the messages or examine all of the links” that pertained to class discussions (p. e147). So, although the discussions were on topic, there were not specific accountability measures in place from the teacher for the frequency of communication expected of students within the joint enterprise.

Mutual engagement. Mutual engagement is characterized by frequent interaction, active participation, and collaborative problem solving. In terms of *Facebook*, mutual engagement can be operationalized to describe how friends interact. Steinfield, Ellison, and Lampe (2008) conducted a longitudinal study of 18 college *Facebook* users that revealed the broad scope of mutual engagement. They state, “These qualitative data support the notion that ‘Friending’ in *Facebook* served an instrumental purpose, allowing individuals to keep in touch with a wide network of individuals who might be called upon to provide ‘favors’ in the future” (p. 442). Maintaining a network where you keep in touch based on the potential need for collaboration in the future is a benefit of mutual engagement. Steinfield et al. note:

Additionally, *Facebook* provides the technical support needed for social interaction to occur. In addition to the bevy of within-system messaging opportunities (“wall” postings, “pokes,” and direct messages between users), the system facilitates face-to-face communication and communication through other media through the contact information that is often included in users' profiles. (2008, p. 443)

Therefore, within *Facebook*, not only is there an arena for mutual engagement to occur, the tools to sustain mutual engagement not only exist as well, but are also used similarly to the way in which people interact in face-to-face situations.

Community. Community designates that members know each other, that they develop a sense of community through interactions in the virtual space, and that members foster an environment where conflict remains low while mutual ties are developed (Murillo, 2008). Koles and Nagy (2012) surveyed high school and college students regarding *Facebook*. They found that “those high school students who view internet-based relationship more as a source of emotional support appeared to also indicate more positive school attitudes” (p. 12). Therefore, the relationships fostered in online environments lead to increased positive attitudes within the walls of the school in face to face environments. Halverson (2011) echoes this noting “If the goal is to strengthen burgeoning social ties between classmates, then creating a *Facebook* group could accomplish this...” (p. 65). *Facebook* offers various opportunities for students to develop community.

Further evidence suggests that development of community within *Facebook* might be where most student interest lies. “The student-student dimension may be more

important that the student-content and student-teacher dimensions...The students may tend to be more interested in the social than the teaching dimensions of tools such as *Facebook*” (Baran, 2010, p. e148). Although there is no question that students value the social benefits of *Facebook*, Eren’s (2012) study of 48 university students using *Facebook* for course interaction specifically addresses curriculum. “Students welcomed using the social networking site as a supplement to the curriculum” (p. 292). Therefore, through the lens of community, students’ interactions in *Facebook* are social, build community, and supplement the curriculum.

Learning and identity acquisition. Learning and identity acquisition is new knowledge or skill gained through participation in the group (Murillo, 2008). Grosseck, Bran, and Tiru (2011) conducted an empirical study of university students using an online survey. Their findings indicate “Around 30% of the students have stated that *Facebook* is an environment in which they feel comfortable and motivated to research, discover, create and fulfill school assignments” (p. 1428). Each of those provides the opportunity to interact in a way that can be described as learning. In a study of undergraduate students, Bicen and Cavus (2011) researched students’ use of various tools within *Facebook*. They assert that “students use applications and tools, such as games and questions. It can be assumed that, students use these tools in their spare times, and these tools can help them increase their knowledge, concentration, research abilities, and motivation” (p. 946), thereby offering students the opportunity to learn within this virtual environment that they are likely already familiar with from using it to socialize with friends. As such, using the lens of learning and identity acquisition shows that students interact within *Facebook* to gain new knowledge or skill.

Using the VCoP lens to theme types of interactions, these empirical studies describe how students interact using *Facebook*. Similar searches for empirical studies about students' practices in *Edmodo* produce little research about this topic. This study seeks to address this void in the literature by describing how students interact in *Edmodo* versus what studies show about students' interactions in *Facebook* for academic purposes such as collaborating to complete school work, interacting with curriculum, and receiving reminders from teachers.

Shared Repertoire	Joint Enterprise	Mutual Engagement	Community	Learning and Identity Acquisition
+ Sharing of resources on the Wall	+ Group members dictate what is appropriate to discuss. Δ Increased communication by group members does not guarantee equal participation by group members.	+ “Friending” allows individuals to keep in touch with a wide network of individuals who might be called upon in the future. + Provides the tools (wall, pokes, messaging) + Tools are used similarly to the way people interact in face-to-face situations.	+ Relationships fostered online (in <i>Facebook</i>) increase positive attitudes within the walls of the school. + Students welcome using <i>Facebook</i> to supplement curriculum.	+ Students feel comfortable and motivated using <i>Facebook</i> to research, discover, create and fulfill school assignments.

Figure 1. Summary of *Facebook* as Virtual Community of Practice.

Similar or Related Studies

Scant empirical studies have been conducted specific to *Edmodo*. One recent dissertation (Sanders, 2012) provides study of student engagement in *Edmodo*. With his chemistry classes for his sample, he utilized a Responsible Learning frame to measure student engagement. Sanders notes that, “*Edmodo* has several promising features that encourage student engagement and responsible learning” (2012, p. 71). Furthermore, specific findings indicate that students felt less inhibited using some of the features in *Edmodo* because they allow for anonymity. Students also indicated that they enjoyed the variance of opportunities for small group interactions that may not have been available in

the classroom. They also appreciated the variety of assessment opportunities in *Edmodo* (Sanders, 2012).

In addition to Sanders's (2012) study of student engagement in *Edmodo*, Alexander (2012) studied the relationship between students' *Facebook* usage and GPA. Hunter-Brown (2012) measured student and teacher perceptions of the use of *Facebook* in the secondary English classroom. Lane (2012) studied high school students' creativity in art class by comparing face to face group work and feedback with online groups facilitated in *Edmodo*. Each of these relates to some component of this study, but none look specifically at comparing the interactions of students in *Edmodo* with what the research says about how they interact in *Facebook*.

Furthermore, along with comparisons with *Facebook*, *Edmodo*'s benefits in the areas of use with students and use for education professionals are detailed in various trade journals such as *District Administration*, *Knowledge Quest*, *Journal of Digital Learning in Teacher Education*, *Technology & Learning*, *Reading Today*, and *Distance Learning*. Many tools are available within *Edmodo* that allow students and teachers to collaborate and communicate outside of the school day on assignments for class (Careless, 2012; Dobler, 2012; Dufrene, 2012; Williams, 2012). For teachers (Perez, 2012; Trust, 2012) and librarians (Anderson, 2010), Professional Learning Networks (PLN) can be developed in *Edmodo* to connect with other educational professionals. Although informative, none of these provide empirical data about *Edmodo*. Therefore, this study intends to build on the research in SNS use in education by studying student interactions in *Edmodo* compared to *Facebook*.

Chapter 3 - Research Design and Procedures

Research Methodology

The qualitative design of this study is based on Corbin and Strauss' (2008) notion that this methodology helps describe specific experiences in complex systems. This study seeks to describe the interactions of students selected for the case study to compare with what research reveals about how students interact in *Facebook* for curricular pursuits.

They assert,

I agree with the constructivist viewpoint that concepts and theories are constructed by researchers out of stories that are constructed by research participants who are trying to explain and make sense out of their experiences and/or lives, both to the researcher and themselves. (Corbin & Strauss, 2008, p. 10)

Thus, from the case studies of the participants, new portraits of the students' interactions in *Edmodo* can be detailed (Creswell, 2009) while students discuss the completion of assignments for AP Literature and Composition. Additionally, the Virtual Community of Practice framework was used to generate a semi-structured interview protocol for interviews of each of the four participants.

Population and Sample—Participant Selection

After seeking approval from the school board, I presented to two AP Language and Composition courses from a medium-sized suburban high school in Gilbert, Arizona. The high school is located 30 minutes southeast of Phoenix in a developing suburb. The ICI (Internet Connectedness Index) survey was used with the students enrolled in these two courses using Google forms to gather the responses. Based on cooperation from the

teacher, I received 16 responses to the ICI. I gained access to this population through the “gatekeepers” of this location, specifically the principal of the school and teacher of the selected sections of AP Language and Composition (Creswell, 2009). Although an employee of the school district, I was employed at another high school and students were not familiar with me or my position.

Based on the scores from the ICI survey, two male and two female students were selected for the case study sample. This sampling was on a volunteer basis from those invited to participate. By conducting this collective case study (Stake, 2010), some commonalities and distinctions in the student interactions in *Edmodo* will be described, then compared with current research about student interactions in *Facebook* for academic endeavors. The intent of the study was not to generate new theories about *Facebook* or *Edmodo*; rather, the hope is to “get closer to the actor's perspective through detailed interviewing and observation” (Denzin & Lincoln, 2008) by looking at their interaction in *Edmodo* in the context of using ASNS to complete assignments for AP Literature and Composition and to describe in rich detail how these interactions affect culture and community for the students.

Instrumentation

The population and sample were purposefully selected based on the use of the Internet Connectedness Index to designate those with the highest level of online connectivity which is a general characteristic of students of this generation. The setting for the study includes the ASNS *Edmodo*. When constructing the semi-structured interview protocol for use with the participants, the subsections of VCoP were used to determine interview questions (Creswell, 2009). Then, the VCoP areas of Shared

Repertoire, Joint Enterprise, Mutual Engagement, Community, and Learning Acquisition and Identity were used as themes for coding data. Further categories were revealed through additional NVivo coding of data (Saldaña, 2009).

Data Collection Procedures

For this study, data were collected in two ways. First, students in the population participated in completion of the Internet Connectedness Index survey. From the data, two male and two female students were selected to participate in the study. These students were then interviewed using the semi-structured interview protocol established with the five VCoP categories.

Survey

An Internet Connectedness Index (ICI) survey was administered to two sections of AP Language and Composition students, or approximately 60 high school juniors who likely ranged in age from 15 to 17. Using Google Forms, students accessed and completed the survey online. The purpose of the survey was to find those students who, based on the survey, self-identify as highly connected to the internet, who have frequent and wide ability to access the internet, and who are experienced in the use of a variety of online technologies. See Appendix B for the survey.

Interviews

Based on data collected from the ICI and the categories of VCoP, a semi-structured interview protocol was established (Rubin & Rubin, 2005). These interviews lasted approximately one hour, but no more than two hours and were conducted on the school site after the completion of AP testing, during the third week of May 2013. Each interview was recorded using an electronic audio recorder device called the TASCAM

IM2 External directional mic for use with the PCMRecorder App. The recordings were professionally transcribed, and the transcriptions were used for coding. Core categories (Corbin & Strauss, 2008) were established within the transcripts based initially on themes from the VCoP concept.

Data Analysis Procedures

All data collected through participant interviews were professionally transcribed then coded by the researcher (Saldaña, 2009). To analyze the interviews, all data collected were coded using the five VCoP areas. This study was designed to detail student interactions in the ASNS *Edmodo* and to compare those to what research says about how students interact in *Facebook* for school purposes. The descriptive research methods used were intended to illustrate the specifics of a sample of secondary students enrolled in AP Language and Composition. By using a survey first to identify the Internet Connectedness Index (ICI, Jung, 2008) of the population, specific students were selected as the sample for case studies. Follow-up interviews of the students yielded data regarding their interactions in *Edmodo* for their AP Language and Composition course (Merriam, 1998).

Data from the ICI and subsequent interviews were initially coded using Murillo's Virtual Community of Practice (VCoP) model (2008). These data were used in a descriptive fashion to detail student interaction in *Edmodo* to compare to what current research reveals about student interactions in *Facebook*. The five aspects of VCoP were used as the initial coding themes for each of the four participant interviews, along with researcher observations of those students' interaction in *Edmodo*.

The sample included four students who rated highly on the ICI, indicating that they are at a domesticated level of use where the internet is concerned (Baym, 2010). Using the ICI to rate students, the top two male and top two female students who are connected to the internet were invited to participate in the study. Students and parents were provided with Informed Consent forms. Additionally, parent assent forms were requested of all parents of students enrolled in each of the two sections of AP Language and Composition. All four students selected to participate accepted the invitation to be part of this study and all four were interviewed.

Tables of these themes were created in NVivo 10 to track the frequency of nodes amongst the interviews. These data were analyzed amongst and across the VCoP model, and in vivo codes that arose during the coding process. Data analysis was an ongoing process. “Analysis is a process of generating, developing, and verifying concepts—a process that build over time and with the acquisition of data. One derives concepts from the first pieces of data” (Corbin & Strauss, 2008, p. 57). Therefore, beginning with the ICI survey, continuing with participant and non-participant interviews, data were analyzed throughout the course of the study through to the reporting of findings.

Validation

Data collected were triangulated by analyzing the ICI survey data and interviews to provide a holistic description of the case participants’ experiences interacting in *Edmodo*. Themes were established using all of these data, and robust descriptions of each case will be provided, and then used as comparisons (Creswell 2009) with research presented in Chapter 2 about student interactions in *Facebook* for school purposes. A peer reviewer who is familiar with quantitative data analysis, will assist in distancing the

researcher from the data to avoid threats to internal validity (Denzin & Lincoln, 2008). The peer reviewer has conducted qualitative research in the field of education and reviewed the findings to suggest a route to discover additional categories revealed in the coding process. The data were then coded for these additional categories and results of these codes form the analysis of data section in Chapter 4.

Ethical Considerations

Institutional Review Board approval from Arizona State University was granted after the successful completion of the defense of the dissertation proposal. Because the focus of this research includes the study of children, much attention was paid to ensuring that there were no risks in participating in this study. Student participants fully understood that the data collected about their identities was kept confidential, in computer files that are password protected, and that their true identities were concealed in the recording of field notes during the interview process, during transcription of interviews, and in the reporting of the findings of this study. Additionally, information gathered in this study was only used for the purposes outlined here; no information was shared with parents, teachers, or school administrators.

Researcher's Stance

Sullivan and Porter (1997) state that, Certain forms of human behavior, especially social forms, are best studied through case studies and ethnographies that openly acknowledge the researcher's intrusion on the social phenomena being studied. Rather than being inferior methods to experiments and quasi-experiments, the argument goes, case studies and ethnographies allow for better in situ study. (p. xii)

The study of describing students' interactions in *Edmodo* and comparing them with research about student interactions in *Facebook* is just the type of research referenced by Sullivan and Porter. As such, the decision to conduct a qualitative study in conjunction with multiple case studies and interviews seemed the most transparent in terms of my intrusion into the digital spaces of young people. The naturalistic approach taken in this study seeks to use the least intrusive methods to gather data regarding student interactions in *Edmodo* while collaborating toward curricular goals.

Furthermore, the population used in this study is within the school district where I am employed. I do not work directly with the teacher who is the gatekeeper of the population, nor do I supervise her or her students. However, I am currently employed as an administrator at another high school within the district. My employment allows me, since gaining IRB approval, to gain access to the population and work closely with the participants within their school environment to conduct the face-to-face interviews.

In order to be completely transparent, I should reveal myself as a fully assimilated digital immigrant (Prensky, 2001). Although I use social network sites for personal, social reasons, I have limited experience with academic social network sites designed for the school environment. Additionally, I have had a personal computer in my home as long as I can remember. The earliest one I can remember was the Commodore 64. During 6th grade, I took summer courses in computer programming at the local university's summer extension for elementary students. My family held subscriptions first to Prodigy, then AOL. I remember being connected to the internet in terms of the ability to make bulletin board postings since the late 1980s. It was also around this time that I created my first email account through AOL.

Throughout college, I utilized computers for all facets of my education from word processing to research. During this time, I always had a computer at my residence, although I would often go to the computing commons on campus to use their faster, more up to date computers. Additionally, I have spent my entire professional career as an educator using email for communication and the internet for professional support. My first teaching mentor showed me how to retrieve lesson plans from the World Wide Web and I have joined listserves specific to my content. As a graduate student, the use of personal computers continued and I began to rely more heavily on the internet, not only for work purposes, but around this time is when I also began to use the internet for social purposes.

Today, I use a smart phone and access my email multiple times daily via my phone. In addition to my laptop and work computer, I access *Twitter*, *Facebook*, and *Instagram* also multiple times per day using my smart phone. I own various computers including a personal laptop for graduate school, a desktop computer, and my husband has a laptop, as do both of my children. Therefore, although I am what Prensky (2001) would consider a digital immigrant, I have achieved the highest level of assimilation and received citizenship in the digital realm. Yet, as an educator, I consistently questioned my ability to appropriately utilize technology with students—the interest has always been there; the comfort with implementation has not.

During the course of my graduate studies, I have always been interested in technology and have pursued various research opportunities in the area of educational technology. In addition to my required course work, I enrolled in two additional courses: EPA 691—Program Evaluation and HED 591—Social Justice & Technology. The former

course is an educational policy course designed to encourage students to conduct research in the area of program evaluation; the latter course analyzed technology within a social justice context. Both of these additional courses fueled my interest in the area of educational technology.

Within my job, I have previously *Edmodo* two ways. First, I was a member of a PLC (Professional Learning Community) called the Educational Technology Committee. This committee was dedicated to evaluating the uses of technology within the school district where I am employed. This group interacted in *Edmodo* as part of our committee assignment. Additionally, I managed a voluntary PLC of teachers from my school site. This group shared and discussed ideas to improve engagement in the classroom and increase rigor in the instructional environment. Combined with fourteen years of classroom teaching experience, these courses, and my desire to investigate the lives of students' interactions in cyberspace bring me to the topic of this study. My hope is by studying student interactions in *Edmodo* and comparing these to how research says students interact for educational purposes in *Facebook*, I can contribute to the literature about the uses of educational technology with secondary students to inform teachers about the possibilities of collaboration and community building when using academic social network sites.

Chapter 4 - Findings

Introduction

The purpose of this study is to build upon existing knowledge of how students interact for school in cyberspace using social networks. This study specifically seeks to describe how students interact in *Edmodo* and compare this to what research says about how students use *Facebook* for educational purposes. Research clearly details how students interact in *Facebook* for school purposes. Since culture and community are created through student interactions, and those interactions now occur in virtual spaces such as *Edmodo*, it becomes necessary to study these interactions to describe the culture and community there. The data revealed in the four student interviews seek to create an image of how students interact in academic social networking sites such as *Edmodo* to complete school work so as to inform teachers about how culture and community occur in cyberspace.

Each of the four students chosen for the case study in this research voluntarily completed a survey about their use and connectedness to the internet. Each student was a member of one of Mrs. Granger's AP Language and Composition classes where they used *Edmodo* to complete extension activities beyond the regular, in-person class. Mrs. Granger verified my legitimacy to her students while I presented my study and discussed seeking participants (Rubin & Rubin, 2005).

Using the Rubin and Rubin (2005) Conversation Partnership style of interviewing, students were asked seven broad questions designed to elicit narratives of their experiences in *Edmodo*. These questions asked were:

- Describe your interactions in *Edmodo*.
- How have you collaborated with classmates using *Edmodo*?
- Which tools do you use in *Edmodo* to interact with peers or your teacher?
- How has interacting in *Edmodo* impacted your attitude towards your peers inside of class or at school?
- In what ways does using *Edmodo* supplement the AP Language curriculum?
- Describe how your interactions in *Edmodo* compare to your interactions in other social networks. (I purposely did not elicit information about *Facebook* so as not to influence any explicit connections student might make to that specific social network).
- To what extent do you feel using *Edmodo* impacts your learning?

Follow-up questions were asked based on student responses to these questions, ensuring that the students understood that I wanted to learn from their experiences. When needed, I asked students to recall a specific incident that illustrated their experience (Rubin & Rubin, 2005) to provide a more robust description of the student experience in *Edmodo*.

This chapter begins with each student's Internet Connectedness Index Profile, based on the survey used to select participants for case study. The next section of Chapter 4 discusses findings based on the five categories comprised in the Virtual Community of Practice model: Shared Repertoire, Joint Enterprise, Mutual Engagement, Community, and Learning or Identity Acquisition. Following the reporting of findings, the analysis of data section reveals the three categories that emerged during coding of student responses that depicts how students interact in *Edmodo*: Accessibility, Functionality, and Environment.

Internet Connectedness Index (ICI) and Interview Profile

Luna

Initially, Luna describes herself as shy; however, when she's around her friends she claims to be "really chatty." Luna calls herself "a pretty average student" who earns mostly Cs. She enjoys drawing and cooking as hobbies, and is not involved in many after school activities other than babysitting her siblings. Luna accesses the internet using two devices for chatting, email, gaming/playing games, listening to music, watching TV, Skyping, surfing the web, and drawing. She lists chatting, music, Skyping, and drawing as the most important activities she engages in while using the internet between 30 and 35 hours per week.

Ginny

Ginny describes herself as a good student who is interested in learning and being philosophical. Characterizing herself as "mostly a B student," Ginny enjoys painting, drawing, and singing. She uses the internet daily and prefers to access *Edmodo* via her iPad, but also uses *Edmodo* with her computer and iPhone. When using the internet, Ginny chats, blogs, emails, listens to music, and surfs the web. She characterizes nearly everything she does on the internet as work, noting that she spends about 35 hours per week using the internet.

Harry

Harry takes mostly honors and AP classes as a junior. Besides challenging himself academically, Harry prides himself on his involvement in football, wrestling, and track. He also speaks fondly of his involvement in National Honor Society where he and his classmates participate in philanthropy in their school and community. Harry and his

friends go fishing if they are unable to find anything else to do. He has spoken to coaches at the University of Pennsylvania, Brown, and Harvard, hoping to attend an Ivy League school where he can continue both his academic and athletic pursuits. Harry has used the internet “as long as I can remember,” and characterizes about half of what he does on the internet as work. He lists email, gaming, and surfing the web as the most important activities he participates in during the twenty-one hours per week that he estimates he uses the internet.

Ron

Describing himself as “exotic, creative, funny, and goofy,” Ron also admits to being a lazy student who only “gets work done occasionally” and is “not very caring” about academics. In general, he earns mostly Bs. He claims his parents say he goofs off frequently and does not take most things seriously, but rather in a comedic way. “I try to make a situation funny if I can.” In addition, he says he feels hyper at home and tired at school. While using the internet, Ron enjoys chatting, instant messaging, checking email, gaming/playing games, listening to music, watching TV, watching movies, Skyping, and surfing the web. He identifies gaming and surfing the web as the two most important activities he engages in while spending 37 hours per week on the internet.

Virtual Community of Practice

All students were asked the general questions detailed in the beginning of this chapter. Their responses were initially coded using the Virtual Community of Practice (VCoP) categories to describe various types of interactions that occur in *Edmodo*. The following results are divided by category to reveal students’ experiences interacting in *Edmodo* to complete activities for Mrs. Granger’s AP Language and Composition course.

Shared Repertoire

Shared repertoire provides tools to necessitate the accumulation of routines. Developing shared routines include high quality documents such as group information or FAQs.

Luna. Luna uses notifications with her email that tell her when *Edmodo* has updates. She notes, “For me, if I get an email from *Edmodo*, I have a tendency to go check” the site to see what has changed. This is in contrast to any mention of updates that the teacher may make during class time. The most frequently received notifications that are a part of Luna’s shared repertoire come from posts and comments. Luna frequently posts a response to the prompts provided by Mrs. Granger. Once a post is made, students comment on the post and then some people reply to the comments made for the post. Luna notes that she will reply to someone’s comment if it was directly related to her initial comment.

Where her profile is concerned, Luna states, “I guess I just felt like I’ll use this [photo] that looks like I’m scholarly for *Edmodo*.” When she uses profile pictures for other social media, she makes an attempt to match the picture to the type of media. For *Edmodo*, appearing scholarly seemed fitting for her profile picture as Luna identifies *Edmodo* as “useful for school.” For *Facebook*, she uses a photo of her with her best friend.

If Luna misses an assignment for class or is home working on an assignment and has questions regarding the assignment, she feels that she is more likely to email the teacher for clarification. Her teacher also keeps an updated webpage that details assignments and missed work. Rather than using *Edmodo*, Luna would seek out the

details on the web page for clarification, for a missed assignment, or if she were absent from class.

Most of the routines accumulated by Luna include the use of *Edmodo* as a convenience. She mentions, “I can do schoolwork on it, so it’s like I don’t have to go write something on paper...it’s more of a convenience.” She shared that when she is at home babysitting, using *Edmodo* to complete assignments is more convenient than other homework she must complete for school.

Ginny. Ginny receives notifications on her cell phone that indicate to her that Mrs. Granger has provided an assignment in *Edmodo* or that a poll is available for her to vote on. This is when she logs in to respond to the prompt, vote in the poll, and read comments from her peers’ responses. Notifications can also indicate if a classmate has commented on Ginny’s response to a prompt. Mrs. Granger has students arranged into small groups of students, so Ginny knows she will be assigned to a specific color based on this routine established by her teacher. While making comments, a tool that Ginny thinks is available is “liking” people’s comments, but she is unsure if this is an option within *Edmodo*.

Ginny prefers to access *Edmodo* using her iPad because the format on her phone is “too small and it’s just not as I like it on the computer...where it does look like a social networking site.” She notes that other components of *Edmodo* that comprise her shared repertoire include the look and feel of the site. The location of the “profile picture, it’s on the left side just like our *Facebook* and the way that you can comment” on what others have posted is similar to other social networking sites.

Other routines Ginny mentions in *Edmodo* include completing the profile. She mentioned that her “profile is 5% complete” and that she “can actually fill out favorite quotes” and earn badges, but she does not believe that Mrs. Granger has badges available for the class. Ginny has seen people try to tag their peers. “They’ve tried to do the @ sign to tag them like you would on *Instagram*. I don’t think that works. I think you’re just essentially ‘tagged’ when someone comments on a post you have commented on” so she receives a notification on her phone if a classmate comments in a post that she has replied to or made a comment in response to the prompt.

Harry. Harry accesses *Edmodo* only when he knows an assignment has been created by Mrs. Granger, which equates to a couple times per week. He utilizes his phone to access *Edmodo*, especially when it is convenient to do so. He states,

I’ve been really busy lately because it’s the end of the year. I was just sitting in the waiting room at the doctor’s office the other day and I did an assignment on the phone. I don’t like it for doing assignments as much on the phone because it’s small screen, but I know some of my friends just do that because it’s more accessible when you’re out and about.

Beyond the reminders posted by the teacher, Harry does not receive notifications on his phone or via email to check *Edmodo*.

Within *Edmodo*, Harry responds to Mrs. Granger’s assignments, as well as responding to his peers’ comments. Additionally, he posts to the main *Edmodo* wall.

Harry comments,

When I’m doing an assignment, I act more, because it’s like, part of the assignment, at least from what I take from it is you’re supposed to write closer to

a prose style you would use in an essay. But, if I'm just posting onto the main page, I would just talk like I normally talk in class--in a normal manner.

Harry states that he will check *Edmodo* to see if his classmates have participated in the activity. "But usually, I'll check it and if someone, especially if someone directly responds to something I wrote, I'll write back. And if they hadn't responded to the statement I made, sometimes I'll ask a question to the whole group." This routine, he notes, is in contrast to other social media that he uses which he checks more frequently.

Additionally, Harry discusses additional tools available for use in *Edmodo*. He notes, speaking of polls,

but this one was asking us how we thought we did on the AP exam, so it doesn't tell you the results until you vote, and then once you vote, it lets you know what other people put and just gives you a perspective on how everyone thinks they did.

An additional poll provided by Mrs. Granger in *Edmodo* requested opinions regarding topics for the class's final exam. Other tools that are used in the routine of accessing *Edmodo* include the layout and design which organizes options for students.

There's a side bar, there's the profile name, your picture, then there's a thing to click on for assignments, posts that you're involved in, groups, whatever that backpack thing is that's on the left. That's exactly the way *Facebook* is set up, so it's easy to navigate. Just click on a post that you want to respond to; it's right there.

As Harry notes, navigation in *Edmodo* is similar to *Facebook*. Furthermore, Harry mentions tools available for his use that are not part of his routine. "There's folders you

can create, documents and stuff. I don't use that because I don't really do anything on [Edmodo] that I would make; I would just write on to the wall itself." He is unsure how these tools work since they are not part of his routine when using *Edmodo*.

Ron. Ron's routines using *Edmodo* include checking the website when an assignment is due. Ron does not use his cell phone to access the site because he does not have the internet on his phone. Grades on assignments generate motivation to check in to *Edmodo*. He feels, "Maybe ten" percent of his peers would complete the assignment if it was optional. Since grades are assigned, he assumes 80% of his peers complete the assignments on a routine basis.

The frequency of logging in to *Edmodo* differs by student. Ron notes, the more motivated students post up to four or five [comments], depending. The less involved ones would post the bare minimum. Let's say [Mrs. Granger] was grading us, she wanted us to post a question and answer something, so they'd post one question and answer it, or they'd just answer a question. Most of the students would post their view and then answer a couple of questions and ask one or two. Ron feels that his routine is established by the expectation of the teacher for the assignment and that the assignment counts towards his overall grade in the course.

Mrs. Granger uses polls to garner student input on assignments. Once the poll is posted, students receiving notifications will know to log in and vote on the poll. Ron asserts, "Right now we're voting on a topic for our final essay, so she put a poll up there for us to vote on a topic." Ron notes that he enjoys the handiness of the routine use of polls in *Edmodo*.

The polls are convenient. It's easier to count up instead of doing an in class poll where people are raising their hands and once people have decided they've decided, so you can't change that. And then the teacher always gets the stats at the end. The outcome.

Beyond the use of polls, Ron notes that the familiar format of *Edmodo* provides useful and accustomed routines. He feels,

The layout is kind of like *Facebook*, the color scheme and the layout, all the statuses in the middle and the extra [tools] on the side. It's like you see something someone posted, and you're like 'Oh, I can reply on that.' You can post it yourself, you have the different classes, on the side it'll be like this class, this class, this class, you can check it—it's like the different 'like' pages you have [*Facebook*]. You have your profile picture, your profile, all this stuff, comment and reply, so everyone's kind of seen it before.

The familiarity because of its similarity to *Facebook* creates an ease of usability for Ron.

Lastly, Mrs. Granger uses *Edmodo* to provide students with reminders on assignments. This routine is helpful for Ron, who considers himself a lazy student and who does not receive notifications on this phone. He notes,

It's mainly just reminders. Mrs. Granger will always post a reminder like 'don't forget that essay's due on Friday' or 'you guys need to start working on this.'

She'll post the rubric for something on there so we can check it there. It's mainly just full of reminders and things like that.

For Ron, who considers himself a lazy student, the reminders help him to track assignments for class.

Joint Enterprise

Joint enterprise includes the idea that there are on-topic and off-topic discussions and members within the group police discussions to ensure they remained focused and on-topic. This ensures quality discussion in a focused environment.

Luna. Luna discussed the notion that *Edmodo* is scholarly compared to *Facebook*. *Edmodo*'s scholarly culture involves being on-task and keeping discussions appropriate, in Luna's opinion. "Because it's school-related, it's scholarly because you're more talking about things intelligently versus just being normal talking about certain things. Even though on *Facebook* you can discuss things very intelligently, you're more relaxed in how you convey things." Part of being on-task in *Edmodo* entails using good grammar and avoiding texting language. Luna notes, "I guess it's just how it usually is for typing for *Facebook*. Instead of typing 'to,' I use the number 2" because the environment on *Facebook* is more casual. In *Edmodo*, Luna "would use more grammar because it's for school." In *Edmodo*, she's aware that she uses better grammar than she would in other social network settings. She's aware that the culture within *Edmodo* is scholarly in nature and this impacts her use of grammar.

If, in the debates, a classmate went off topic, Luna thinks that she or one of her peers would probably steer the conversation back on topic. She notes, "I guess they would try to figure out some connection that connects them back to the topic." In comparison, if someone went off topic in class, Luna feels that the Socratic Seminar would likely move past an off-topic comment. In *Edmodo*, there is time to redirect the person who heads in the wrong direction. However, Luna did state that someone might be

likely to “toss this question out and see what people will say” when discussing sensitive topics for debate in *Edmodo*.

Ginny. Ginny discussed that writing responses in *Edmodo* creates a different tone than debating topics face to face in class. She mentions that in class, if you are going to direct a specific comment to a peer, you can do that easily; however, in *Edmodo*, there is no way to tag someone so that they are notified that the comment is directed towards their post. Ginny specifically references the use of @ in *Instagram* when comparing how she would notify someone in that online community that her comment was directed towards that user.

One way that Ginny personally redirects off topic discussion is by asking specific questions to readdress her classmates. She asserts,

I’ve had someone in my group, I understand where they’re trying to get to, but their point towards the end is irrelevant. So, I’ve tried to see how they thought about that. Then, sometimes, I’ll question them “What do you mean by this?” I’ll ask them instead of just being “Well this is completely irrelevant, I don’t understand what your point is.”

Ginny concerns herself with the use of appropriate tone to remain on-topic by redirecting her classmates using questions. Using the appropriate tone within *Edmodo* is part of the scholarly culture that Ginny references.

Part of what indicates on-task behavior is the school appropriate tone that students use within *Edmodo*. Even when debates get “heated,” Ginny comments “I think that between *Edmodo* and other social network things, we definitely keep it at a school-appropriate level” in *Edmodo* because of the academic culture students feel within the

site. The “heated discussions” have a general outcome that Ginny describes. She says, “Most of the time we all just take it calm and we just get along.” She recounted a group that she had heard of whose debate contained arguing and tension. Her group, however, would “keep it civilized,” which she attributes to the group of students that were selected for the group by Mrs. Granger. The small groups created a community within the ASNS where students focused on school appropriate discussions.

Much like Luna, Ginny states part of the on-task, appropriate behavior in *Edmodo* includes an intellectual tone. She characterizes *Edmodo* as “intellectual versus *Facebook* where people tend to use improper grammar, spelling, and punctuation.” Conversely, *Edmodo* is for school. Ginny asserts, “I think *Edmodo* makes you remember ‘this is for a class’ and I think it’s important that we do keep our grammar and punctuation as it should be for a class.” The culture within *Edmodo* is more formal than in purely social environments, much like the classroom is more formal than social locales.

Harry. Harry retells a story where his classmate posted something to the wall. Harry says, “My friend got on and he was like, ‘yeah, there’s a test tomorrow and we’re going to do good’ and other people posted ‘yeah’ and that was a non-school-related thing.” Harry’s story illustrates how some students post conversations that are beyond the discussions created by Mrs. Granger. Although the culture is academic within the ASNS, some of the joint enterprise shared within the community is purely social as Harry demonstrates from his comment.

Harry says that if he noticed someone off topic, he would comment because of the culture of intellect he feels when using *Edmodo*. He asserts, “I would respond to it if I saw it. If I was on there for an assignment and I saw it, I would definitely answer it.”

However, if someone is extremely off topic, he mentions, “You usually wouldn’t really respond to that person’s [comment]. You would more talk directly back to the other person” whose response directly responds to the prompt. In an effort to redirect discussion that may steer off topic, Harry says he poses questions to his classmates. He states, “If they hadn’t responded to the statement I made, sometimes I’ll ask a question to the whole group.” If a peer does respond, but it seems off-task, Harry says, “I’ll just ask a question based on their response just to keep the conversation going.” Harry uses questioning to ensure that discussions stay on-task and focused in the academic community of *Edmodo*.

Ron. When using *Edmodo*, Ron states that he alters his tone to be appropriate for the community. He notes, “I’d say I’m usually a little more professional on *Edmodo*, mainly because it’s easier to show more emotion on there because you have to type everything, you’re not actually there in person.” Not only does this reference his behavior, but also makes mention of the difference of how he interacts in person in comparison to how he interacts in *Edmodo*. Being on-task and appropriate in *Edmodo* is a component of the academic culture in the ASNS.

When discussing off-topic conversations, Ron notes the role that Mrs. Granger plays in ensuring that discussions remain focused and on-topic within the cyber community. He feels,

I don’t know if someone would say something, or if the teacher would go in there and just delete the comment. If it’s not relevant to what’s supposed to be in there, Mrs. Granger would probably just get rid of it.

Here, Ron reveals that policing the discussions for appropriateness would fall on Mrs. Granger in contrast to other students' idea that part of the culture is to take part in redirecting people back on-task. He further describes the academic tone within *Edmodo*'s community. He says *Edmodo* is "Educational, you know. Informed. Kind of like if you have questions about it you don't really understand, you would ask questions and someone will answer. An intellectual conversation." This reveals that within the community in *Edmodo*, student interactions are academic and intellectual. Ron feels there is a culture of collaboration where his peers help to answer questions.

In addition, Ron discusses the lack of distractions in *Edmodo* that allow discussions to be more focused. He says, "In class, the discussions get a little bit more heated, more involved, because on the computer, you can't really see the emotion behind what someone puts there. It's just words on a screen. There's no side distractions." In *Edmodo*, remaining focused and on-task is easier because there are fewer distractions than in class. Cyberspace offers a community where students are faced with fewer interferences in completing academic assignments.

Mutual Engagement

Mutual engagement is characterized by frequent interaction, active participation, and collaborative problem solving.

Luna. Luna identifies herself as initially shy until she gets to know someone. She states that she participates more frequently in *Edmodo* than she does in class.

We would have class that converses online when we're not at school. So, if we'll have a group discussion about something, we'll do it online. Or, that's what we've

recently been doing is having an online Socratic Seminar with certain topics. Go back and forth on discussing things. Kind of cool, actually.

These interactions are similar to those discussions and Socratic Seminars that occur in class, but Luna is more participatory in *Edmodo* community. She feels that for discussions in *Edmodo* she is, “more able to discuss more” than discussions in the classroom environment.

After school, Luna is responsible for babysitting her siblings. She enjoys using *Edmodo* because of the convenience of using it while at home. She feels,

I guess because of how my lifestyle is. I don’t leave the house a lot. It makes it easier for me. I watch my sisters, so kind of tough to go do other stuff. Being able to multitask like that makes it easier

to complete school work. She also notes that she likes collaborating online because she can focus more on people’s thoughts in *Edmodo* and less about who they are or if they are being judgmental. She comments,

I guess it’s more of not having to directly deal with what the other person will think. It’s more of “ok, so I’m able to freely discuss this online.” I don’t have to entirely worry about the other person’s opinion of me versus the details of what I’m saying.

The community *Edmodo* creates allows for Luna to participate more actively and frequently than she does in person in the classroom.

Ginny. Ginny states that she enjoys collaborating in groups in *Edmodo* because it provides time for reflection on writing. She feels that *Edmodo* is most appropriate for honors and AP students because she feels they are more likely to interact frequently.

Speaking of assignments in *Edmodo*, she says, “But, I mean it all depends on the students-if they’re willing to do it, but I’ve noticed that honors and AP kids are more dedicated to these kinds of assignments.” Ginny assumes that honors and AP students are more likely to flourish in the academic culture of *Edmodo*.

Ginny collaborated in *Edmodo* by preparing for the AP exam. She notes, I know we would always post things to boost each other’s esteem. I actually had a friend go on there and even Mrs. Granger does it, too. She’ll post things that are really encouraging for the class. That’s actually really helpful.

Ginny claims the reminders and reassurance reinforces that she is well prepared for the AP exam and she appreciates the encouragement offered in the academic community of *Edmodo*.

Some of the interactions in *Edmodo* disappoint Ginny. Speaking of the debates that occur in order to argue a point of view, Ginny notes, “I feel like some kids still feel like it’s *Facebook*. They don’t understand that it’s school-related and they shouldn’t take it personally.” Since Mrs. Granger expects active participation, Ginny is excited when the debates are highly engaging. She states, “Mrs. Granger says, ‘defend, state your position.’ We’re not all going to agree and there’s no fun when you all agree.” Ginny also mentions that debates and Socratic Seminars in class take on the same types of interchange because people have very different points of view. Within *Edmodo*, a community of spirited debate is what Ginny finds engaging.

Harry. The frequency of Harry’s interactions depends on the assignment. He mentions,

Usually, it depends how late in the week it is. Like, if I posted something Friday or Saturday and it ends on Sunday, I might not get back to it by Sunday. But, usually I'll check it and if someone, especially if someone directly responds to something I wrote, I'll write back. I'll just ask a question based on their response just to keep the conversation going.

This demonstrates Harry's level of participation in *Edmodo* and his frequency of interactions while using the website.

In terms of frequent and active participation, Harry states that *Edmodo* is "not checked as often because we're not on there as often. There's probably some kids that don't do the assignments because they're lazy or they forget. It's not as impactful a part of our lives because we've grown up with *Facebook* and *Twitter*. This isn't something new to us." Therefore, Harry does not actively participate in *Edmodo* beyond the expectations of the teacher since the online community is not somewhere he logs in to as the environment is not a novelty because he and his peers have grown up using other social network sites.

Harry discusses how frequently his classmates post. He says,

There was about ten posts on [the assignment]. I don't know how many people are in the group, but there was about five or six people talking about the [topic]. Some people just post once and they don't post again and there's a few people that post a couple or three times. I consider that's what the teacher wants in the assignment. But, I don't know how she grades it, but I would consider that what she's expecting.

Harry feels that he actively participates based on Mrs. Granger's expectation of frequency of interactions to earn a good grade on the particular assignment.

In addition, Harry mentions collaborating with various people in class based on how Mrs. Granger organizes the groups. He states,

I think she rotates the groups so that we get different opinions and it's not always the same people, and I think she doesn't let us know beforehand who's in the group because that could affect the responses, I guess. If you already had prior knowledge of who you're talking to

it might impact the type and frequency of interactions. The rotation of members of small groups provides students the opportunity to interact within different, small communities of peers.

In comparing the interactions in *Edmodo* with the classroom, Harry articulates, "I think that it extends your classroom interaction to outside the classroom with students because if you're given an assignment you wouldn't be collaborating with the same students that you are inside of class." Mrs. Granger assigns small groups when students debate in *Edmodo*. When asked how Harry would choose his own group, given the opportunity, he asserts,

I would choose the people that actually participated the most and actually gave feedback because a lot of people don't do that. They'll just post once and not look at it again or they'll post, but other people are actively involved. So, if I wanted to have a successful group, then I would pick people that I know are genuinely going to try to contribute.

Harry would choose students who participate at a similar level to his own participation so as to create a successful and engaging culture within *Edmodo*.

Harry discusses active participation, noting that teachers:

should know that they're not going to get 100% participation in [*Edmodo*] because some kids just don't want to be involved, but that's the same with any assignment. Some people aren't going to give a full effort into it, and so something you're trying to accomplish on *Edmodo* might not happen the way you expect it to because people aren't going to necessarily be all gung-ho about the assignment because they don't think it's that big a deal.

He goes on to reiterate the point that the teacher's role in establishing the expectations is important, specifically the grading of the interaction.

Yeah, I think that's why everyone participates. Because you're participating for your grade, you get involved in it. We've had seminars in class where a few of us get really heated and we're actually involved in the discussion and we really care about what we're saying.

For Harry, the grade provided by Mrs. Granger, based on her expectations, is what dictates his level of engagement in the activity and participation in the discussion. The expectation of the teacher and the grade on the assignment direct the culture of engagement.

Ron. When discussing the interactions and collaboration in *Edmodo*, Ron described how the group activities work. He indicated,

Usually in each discussion, there's someone who leads the discussion. It starts out there's one person who kind of seems to really understand it, so they're the first

one to comment or they have the longest [response]. Then they usually answer most of the question, so they kind of lead it.

Furthermore, Ron characterizes his participation as minimal. He says he “won’t normally contribute too much, especially on *Edmodo* because I post what I do to get the credit if we’re being graded and then I’ll get off and I won’t really check again.” He mentions that he would become more actively engaged if a component of the grade required more frequent engagement such as a specific numbers of replies to peers.

Mrs. Granger’s expectations drive much of Ron’s collaboration and active participation on the assignments in *Edmodo*. He clarifies that,

most of the time, I expect everyone to have gone on there the first day it’s assigned. She usually gives us a week to go through and do it. She’ll assign it Monday and I’ll go on like Thursday night and there’s only been one or two people who’ve commented so far. Or, I’ll do it like in school and I’m on a computer, I’ll be like, “Oh, I should do it now.”

Ron procrastinates his participation in *Edmodo* until the end of the window established by Mrs. Granger.

When asked how he would decide who to work with in a group if given the choice versus Mrs. Granger assigning the groups, Ron says, “I would choose someone who they’re usually, they’re more involved in the conversation than someone who’s not.”

Ron states that *Edmodo* is not the primary website that students use within their day, so the frequency of collaboration or active engagement varies and the online community is generally for school purposes only. He mentions,

I'm pretty sure most people don't use [*Edmodo*] as their primary website. So they'll just go on there if they have to, so if you were to post something like "I'm looking for a job" or "I'm selling something," you'd probably do it somewhere more popular where more people would see it.

This type of non-school collaboration or interaction is not seen by Ron within *Edmodo*'s community.

Community

Community explains that members know each other and develop a sense of community through interactions in the virtual space. The community must remain small enough to be considered a "mid-sized" group to allow interactions to foster an environment where conflict remains low while mutual ties are developed.

Luna. Luna appreciates that *Edmodo* provides opportunities to get to know each other beyond the classroom for assignments. She feels,

It's useful for school. Being able to specifically get together for class and if you're not connected to any of your classmates on other social networking stuff, you can actually talk to them that way. So, it makes that easier if there's an assignment and you can't be at school for a while, so it's useful that way too.

Since Luna babysits afterschool, she can still stay connected to her classmates and feel part of the community through *Edmodo*. She also appreciates that working online allows her to interact with her peers at her own pace. She notes, "Online there's more time within [writing] versus actual personal Socratic Seminar when you're back and forth talking." Luna feels being able to get her point across is easier in *Edmodo* when she has time to compose her thoughts before she conveys them to her peers.

Working in the groups established by Mrs. Granger provides opportunities to develop connections and strong community with classmates. Luna says, “you already know them from being in class, but then you’re hearing their opinions and you understand them more, also.” The sharing of opinions on the various prompts provided for debate in small groups allows Luna to understand where people are coming from and what their opinions are on various topics. She states,

A while back, people were discussing [a topic] and one of the people agreed with what I said and kind of added to it, so it was interesting how people would actually agree with you on certain things while you don’t know if other people disagree with you depending on what they comment on.

Edmodo’s online community provides Luna an arena to know more about how her classmates feel about the topics they debate for class assignments.

Luna often compares her classmates’ opinions with her own to discern where they stand. She adds,

I’m more likely to understand how they are kind of like on a similar basis of me. With certain discussions and when we do discuss about certain topics, I kind of like to see what their input is because sometimes what they say is quite interesting.

Additionally, Luna mentions that if she were to be absent frequently, this would help her understand assignments.

Luna notes that she knows her classmates better because of the online community within *Edmodo*. She states, “I’m able to communicate with students because in my class, I’m not *Facebook* friends with a whole lot of them, so I don’t talk to them outside of

class a whole lot.” However, because of *Edmodo*, even though she’s shy, her interactions in virtual space have increased with her peers, allowing her to get to know peers better. Luna notes, “I might interact with them in class. Sometimes I’ll talk to the person in class and then *Edmodo* or *Edmodo* and then in class. It varies. I guess it makes you feel like you have a better understanding” of the other students in class.

Ginny. Ginny mentions her profile picture is one way she conveys who she is to her peers within *Edmodo*. She shares, “I think the fact that we do profile pictures already states that this is who I am come talk to me, I guess. And the fact that we can, you know, comment on posts and talk to one another” are two other ways that Ginny feels she can interact in virtual space to get to know her classmates. She notes, “The fact that we can interact with one another, even though it’s for a school assignment, it still can be considered social.” Getting to know her peers better is a social aspect of *Edmodo* that Ginny enjoys about the online academic community. Ginny says,

I definitely notice that people are much different on how they act on *Edmodo* and how they comment on some posts. They respond just like they would in person while other students will just respond in a more formal way. Our tone’s very different.

But, through these comments, Ginny feels she gets to develop mutual ties with her classmates. She comments, “I personally want to see what other people have to say and whether or not people disagree with me because I like viewing other people’s perspectives.” From this commentary, she gets to know her classmates better through *Edmodo*’s community.

The interactions in *Edmodo* give different types of students' diverse opportunities to develop relationships with each other. Ginny relates,

I definitely feel like I do know [peers] better because, you know, in class not everyone is going to participate in any of the activities. Like, I have a friend in my class, very, very shy, he doesn't really want to raise his hand to comment, but on *Edmodo*, since you're required, since it is a grade, [he does]. I feel like people like those shy kids are able to state their position without fearing about what other people think.

Her shy friend participates more frequently in *Edmodo* than he does during discussions or Socratic Seminars in the classroom because the online community minimizes the fear of participating.

When asked if she would access *Edmodo* if there were no grade for the assignment, Ginny feels that she would. She feels that if *Edmodo* were voluntary:

I do think I'd find myself there. I'm interested in what others have to say and I definitely am the type of person that if I don't agree with you, I'm going to let you know and I'm going to tell you exactly why I don't agree with you.

This would truly reveal Ginny's opinions about the various debate topics posted by Mrs. Granger and her class mates would know her through their interactions with her in *Edmodo*. For a highly interested student such as Ginny, the culture of communication, such as the back and forth debate that she has experienced by completing assignments for class, creates a community where interested students would access regardless of grade solely to be a member of the discussion.

Learning or Identity Acquisition

Learning and identity acquisition is new knowledge or skill gained through participation in the group

Luna. Luna discussed how *Edmodo* reveals the identity of her class mates. She states,

If I were to talk to one of my classmates from last year's English class even in class he's like the philosopher in our English class because he talks intelligently a lot, online sometimes too. Sometimes talking on *Edmodo* is a reflection of who you are in class. Sometimes it's more of an add-on of who you are, in a way. It shows a side of you that normally you wouldn't be like, I suppose. It's a mirror reflection.

As someone who identifies herself as shy, the ability to interact in *Edmodo* allows students like Luna to reveal more of their identity. Luna also notes that she feels like she knows her classmates better in *Edmodo* and the ability to think about what she's going to write to post in *Edmodo* makes her more confident about how she conveys herself in the online community. She mentions, "You already know them from being in class, but then you're hearing their opinions so you understand them more." When students interact in *Edmodo*'s community, they know each other at a deeper level than they do from interactions at school.

Luna uses different profile pictures in *Edmodo* than she uses in *Facebook* and *Skype*. She notes, "I guess I just felt like 'I'll use this one that looks like I'm scholarly for *Edmodo*, this one with my best friend for *Facebook*, and this is me reading my favorite book for *Skype*.'" She feels that these are all different because *Edmodo* is an academic

community. *Edmodo* is where you are “interacting with your classmates and your teachers” to work towards curricular goals. In discussing learning acquired through the use of *Edmodo*, Luna states, “I suppose it’s more on how we convey what we’re talking about because we’re writing and conveying ideas so we use that in *Edmodo*. So, it kind of helps with [writing].” In addition, Luna mentions using *Edmodo* to extend class activities in cyberspace. “If we’re discussing about something in class and we want to expand, we’re not like in a computer class where we can pull up some sort of video that helps with it; we can post it to *Edmodo*.” The online community offers an extension of classroom activities into cyberspace.

When asked if she would choose a class purposefully to have a teacher who uses *Edmodo*, Luna had an affirmative response. She feels,

In my opinion, it probably seems a little better to have a teacher that uses *Edmodo*. Besides checking the Teacher Page [on the school website], you can just upload [a question] to *Edmodo* so you can get it from there.

This convenience for seeking help in *Edmodo*’s online community is something Luna has mentioned previously in terms of babysitting after school or being absent and finding out what was missed during classroom activities.

Ginny. When discussing learning, Ginny mentioned she enjoys seeing the thought processes of her peers. She notes, “The way we [AP students] respond to one another is very intellectual, I think, versus *Facebook* where people tend to use improper grammar, spelling, and punctuation.” Ginny feels *Edmodo* is an academic community where the culture dictates the use of appropriate writing techniques such as suitable grammar, spelling, and punctuation. “I think *Edmodo* makes you remember ‘this is for a class’ and I

think it's important that we do keep our grammar and punctuation as it should be for a class." Additionally, Ginny mentions the use of vocabulary while completing writing assignments in *Edmodo*. She asserts, "But, [*Edmodo*] definitely improves writing skills; it improves vocabulary because I think there's a part of us that always wants to impress others by you know using great vocabulary." Within *Edmodo*, Ginny noted the importance of the audience in completing the activities in the online community.

Because the assignments completed in *Edmodo* are for an AP Language and Composition course, the assignments provided by Mrs. Granger addressed argumentation and supporting opinions through debate. Ginny noted what she learned from completing the assignments. She felt,

So definitely, [the assignments] were in the form of the essay questions. And, if we did those and we actually dissected exactly what we needed to know, then we would be, without even knowing, we're preparing ourselves for the AP test.

Ginny felt that the online community in *Edmodo* allowed her to gain knowledge because there were fewer distractions than in class. "In class, I feel like it's more distracting for me sometimes. I need to be by myself, isolated from people, just in my room, focusing on the assignment at task." Ginny's ability to state and defend her position in *Edmodo* stems from her ability to focus on the assignment and reflect on her writing in the online community in comparison to in the classroom. "In class," she says, "people are talking around me. It might change my position right away and then I get confused. I think it's a lot easier on *Edmodo*" to formulate an argument and write clearly.

One downfall to the acquisition of knowledge when using *Edmodo* that Ginny mentions is the need for an internet connection. She relayed,

one time when I was really, really sick. I still had to finish my *Edmodo* post and it was getting really late, but the Wi-Fi at my house wasn't working. One negative thing about *Edmodo*, if you don't have internet connection, you can't email your teacher about why you can't do the post, and then you can't do the post.

The ability to use *Edmodo* is dependent upon students' availability to access the internet.

Analysis of Data

The next section of this chapter discusses three categories gleaned from student interviews. The three categories are: accessibility, functionality, and environment. These arose from what Merriam (1998) describes as “cross-case analysis leading to generalizations” in the data, here generalizations about student interaction in *Edmodo*. The following categories describe three sets of student interactions in *Edmodo* that reveal a broad description of the academic social network site. The codes from the first cycle coding (Saldana, 2009), detailed in the previous section of this chapter, were established using the categories established in Murillo's (2008) Virtual Community of Practice framework. In the next section, further analysis of the data provided from interviews with four students will be detailed as a result of second cycle coding methods. Using Pattern Coding, the data from the initial coding cycle were reconfigured to examine the specific types of interaction in *Edmodo* that students discussed. The categories were established based on the frequency of mention by participants that lead to the following themes (Saldana, 2009).

Accessibility

This section will detail the findings about the accessibility of *Edmodo*. The data indicate how, why, and when students access *Edmodo* to complete assignments for

school. This section will be broken into four sub-categories: cell phones, convenience, motivation, and frequency.

Cell phones. Three of the four students discussed using cell phones to access *Edmodo*. Only Ron, who does not own a smart phone, had not accessed *Edmodo* from his cell phone. He felt that although many of his friends had the *Edmodo* app on their phone and likely accessed the site this way, “I’m already on the computer so I can just do it there.” In addition to accessing from their computers at home, the other three participants discussed accessing *Edmodo* using cell phones.

Ginny accesses *Edmodo* from her cell phone, but actually completes assignments using her iPad. When asked if she accesses *Edmodo* on her cell phone, she responds,

Yeah, but I actually prefer it via my iPad or computer because I feel like the format on my phone-it’s too small and it’s just not as I like it on the computer.

Because, on the computer it does look like a social networking site, so it’s more familiar. Um, and I don’t usually go on my like *Facebook* on my phone. I don’t know. I tend to like the computer.

Ginny’s personal preference is to use the computer; however, in the case of schools who don’t have enough computers for all students, using smart phones in the classroom might provide students the ability to access *Edmodo* without having to be in front of a computer.

Harry prefers the handiness of accessing *Edmodo* from his cell phone. When asked about student completion of polls in *Edmodo*, he could not remember the most recent topic, so he accessed *Edmodo* on his phone during the interview. He said, “I can check right now, actually, on my phone. Yeah, no one really responded, but some of us

saw it.” Like Ginny, Harry accesses *Edmodo* on his phone, but chooses not to complete assignments this way. He asserts,

I’ve used my phone to check before, but I’ve never done the assignment. Just because I was at school and didn’t really have time but I was just checking because I knew someone said that there was an assignment posted.

Instances like that are when Harry uses his cell phone to access *Edmodo*.

Unfortunately, Harry is unable to access *Edmodo* while at school because his school has a no tolerance policy for cell phone use during class time. This frustrates Harry because he feels it would be convenient for him to access *Edmodo* during class time in a situation where he finished an assignment or test early. He states,

Everyone has personal computers on them that can be utilized in a school environment to be more productive and they’re not because the phones are made out to be distractions because of the texting or whatever. People still text in class anyway. They just hold it under the desk.

Additionally, Harry discussed using his cell phone to access *Edmodo* while waiting at the doctor’s office or in a restaurant. When discussing accessing *Edmodo* from cell phones, both Harry and Ron describe the use of cell phones to access *Edmodo* as convenient.

There are ten additional references to the convenience of *Edmodo*, which is the next sub-category in the category discussing accessibility.

Convenience. Luna describes using *Edmodo* for school work as “more of a convenience” than paper and pencil assignments. Because Luna spends afternoons babysitting and describes herself as someone who does not leave the house if she does not have to, the convenience in accessing *Edmodo* makes Luna feel that completing

school work in *Edmodo* is easier for her. *Edmodo*'s convenience translates to her as ease of use. In comparison, Harry appreciates the convenience of extending school work from the classroom beyond the school day. He mentions,

I like how you can be assigned in a group and talking about things. I think that makes it better; it extends your classroom interaction to outside the classroom with students because if you're given an assignment you wouldn't be collaborating with the same students that you are inside of class.

Whereas Luna's value on *Edmodo*'s convenience relates directly to her lifestyle, Harry views the extension from school to home as a convenient way to collaborate with different students.

Ron discusses the convenience of completing polls in *Edmodo* because the polls quickly gather data about a topic. He notes,

The polls are convenient. Like, it's easier to count up instead of doing an in class poll where people are raising their hands and once people have decided they've decided, so you can't change that. Then, the teacher always gets the stats at the end. The outcome.

One of the polls used in Mrs. Granger's class determined which topic would be selected as the writing final exam. Therefore, the convenience of the polls relates to offering students choice in their curriculum, which will be discussed in the next section of Chapter 4 when discussing students' motivation for accessing *Edmodo*.

Motivation. Three of the four students discussed the level of interest of the assignment as a factor determining their motivation to access *Edmodo*. Specifically, Mrs. Granger provides

AP prompts for group discussion as a vehicle for students to develop their argumentative writing skills. Ginny states,

Don't just give us prompts that are really boring. I mean there's always going to be something that won't interest you, but I think if students are given something that sparks interest or sparks a really heated debate, that that will, you know, invite more people to participate. Because I think if there is an interesting subject, people are going to want to participate in [the activity] and give their insight.

Although Ginny addresses the difficulty in choosing topics that interest a broad group of students, she reports that high interest activities are more likely to motivate students to participate in an activity in *Edmodo*. Mrs. Granger used polls to solicit input regarding writing topics, which assessed students' interest level. Harry also discusses that the level of interest in a topic in *Edmodo* drives student motivation to access *Edmodo*. He feels,

There's a few kids that are really involved in a specific topic. Dependent on what it is, some people might be like, "Oh, this really affects my life or the things I do" and so then they'll be more inclined to give their viewpoints more thoroughly.

Student interest in a topic impacting students' participation in the activity is not specific to *Edmodo*; however, when making generalizations about what motivates students to access *Edmodo*, the data indicate that choosing topics and activities of high interest will positively impact participation.

Beyond interest level in specific topics raised for discussion in *Edmodo*, Harry is explicit that not all students will have the same level of interest in participating in assignments in *Edmodo*. He asserts,

[Teachers] should know that they're not going to get 100% participation in [*Edmodo*] because some kids just don't want to be involved, but that's the same

with any assignment. Some people aren't going to give a full effort into it, and so something you're trying to accomplish on *Edmodo* might not happen the way you expect it to because people aren't going to necessarily be all gung-ho about the assignment because they don't think it's that big a deal.

Therefore, the teacher's expectations in conveying the assignment's guidelines, as Harry indicates, will impact students' motivation to access *Edmodo* and participate in the completion of the activity or assignment.

Luna feels that offering choice and variety in assignments or topics for discussion in *Edmodo* impacts students' motivation for accessing the site. She notes,

I guess for some of the posts that we have, I might not be able to figure out what to talk about because I somehow can't grasp the topic because there's no way for me figure out what I'm supposed to talk about. Sometimes talking about a variety of topics to get a student at least trying to at least talk about something would help. I guess more of trying to throw out a bunch of topics and see which ones the student might get into

would help motivate students to access *Edmodo*. Ron reiterates this comment noting that teachers should offer choice in the assignments to include students in the lesson planning process. He states,

Give [students] more of an opportunity to be a part of their curriculum or what they're learning. Kind of like with the final essay [topic]: let them vote on what they want instead of just assigning things. Give them an opportunity to choose. So, it[might look] like "go on *Edmodo* and vote for the topic for the next essay or

vote for what you want to learn about next, something you want to talk about.”

Giving someone more of an opportunity to be a part of their education.

By offering students the chance to provide input on the assignments or topics in *Edmodo*, Ron stresses students will feel more a part of the process. The opportunity to choose then becomes motivation for participation in activities and assignments in *Edmodo* and is motivation for accessing the site.

Beyond providing students choice in establishing topics of interest in *Edmodo*, the teacher’s expectation of students dictates much of the student’s motivation for accessing the site, how much they interact with their peers, and why they access. Whereas Luna was unsure if she was supposed to access *Edmodo* a certain number of times per assignment, Harry proposed, “I also check it periodically for reminders because sometimes [teachers] put up assignments or reminders for tests that come up.” The reminders posted by Mrs. Granger provide more detail about her expectations for assignments. He added,

Earlier this year we’ve had assignments on [*Edmodo*] that we get in class and then later we’ll get another assignment that she’ll post on there. She’ll be like, “check *Edmodo* because you have an assignment.” So, we’ll have to write a short essay or something, but the topic will be on there.

Mrs. Granger’s expectations of the activity are a specific reason Harry accesses *Edmodo*.

Ron also comments on using *Edmodo* motivated by Mrs. Granger’s expectations. He says,

Occasionally, I’ll like check once or twice a month if we haven’t been on there in a while just to see if [Mrs. Granger] posted something. Sometimes, like on her

teacher page on the school website, it'll say there was an *Edmodo* assignment, so I'm like "Oh, I better check that out." Sometimes she won't tell us in class. Ron, as Luna mentioned, is unsure of how often to access *Edmodo*, so he uses other information from his teacher, specifically her mention of it in class, as motivation for accessing *Edmodo*.

When discussing accessing *Edmodo* and the amount of participation required, Harry is unsure how often he should be accessing *Edmodo* or commenting on posts and writing replies. He feels that three posts or comments meet the expectations of Mrs. Granger. He notes, "I consider that's what the teacher wants in the assignment. But I don't know how she grades it, but I would consider that what she's expecting, to me." He connects her expectation of accessing *Edmodo* to the objective of the lesson. For example, he mentions the use of polls:

It doesn't tell you the results until you vote, and then once you vote, it lets you know what other people put and just gives you a perspective on how everyone thinks they did. It's not necessarily like a, like a what am I trying to say...like it doesn't affect our grade or anything, it just puts in perspective how people felt about the test, which could be more for her, I guess feedback for her.

Harry mentions that the polls provide Mrs. Granger feedback about students' opinions of topics, which has been mentioned previously as a motivating factor for accessing *Edmodo*. This also brings to light the most frequently mentioned motivation for accessing *Edmodo*—grades.

In the coding of responses about *Edmodo*, grades were mentioned 13 times total. All four participants referenced grades when discussing accessing *Edmodo*. Ginny

discusses making topics of interest to students, but she also references grades. She feels, “I think *Edmodo*, we go on there because you know we also want that grade.” She further discusses how grades motivate students to access by noting, “Definitely, you know, incentives, like ‘if you don’t do it, you don’t get the grade.’” Harry discusses grades in regards to his participation in accessing *Edmodo* to complete the polls. He declared, “I’m not sure if they’re required. It sounded like it was required, but I don’t know if it’s a grade. So, I participated.” He assumed that accessing *Edmodo* to participate in the poll was a graded assignment, so he completed the activity clearly showing a grade for the assignment as his motivation. Although they both cite grades as a motivating factor for accessing *Edmodo*, both Ginny and Harry say they are highly likely to access *Edmodo* whether or not a grade was associated with it because both are interested in the assignments provided by Mrs. Granger and what their peers will say in discussions. Harry posits,

Yeah, I think that’s why everyone participates. Because you’re participating for your grade, you get involved in it. We’ve had seminars in class where a few of us get really heated and we’re actually involved in the discussion and we really care about what we’re saying. It depends what the discussion is, but there’s just some kids that actually, either kids that are really wanting to get a good grade, that’s their driving force.

Therefore, the initial reason for accessing *Edmodo* is to earn a grade; however, once there, student interest in the activity keeps students there. There are other factors that account for the frequency of student access to *Edmodo*.

Frequency. The frequency at which students will access *Edmodo* is directly

impacted by the availability of internet access. Ron comments that he would use his cell phone to access *Edmodo* if he had a smart phone. Because his cell phone doesn't have internet, he is unable to access *Edmodo* as frequently as some of his peers who often access the site from their cell phones. Additionally, Ginny related a story about completing work in *Edmodo* while home sick. She related,

There was one time when I was really, really sick, and I still had to finish my *Edmodo* post. It was getting really late, but the Wi-Fi at my house wasn't working, which is actually one negative thing about *Edmodo*. If you don't have internet connection that's one bad part about for like the school purpose. If you don't have a connection, you can't email your teacher about why you can't do the post, and then you can't do the post.

Although all of the participants in the study have access to the internet at home, further consideration must be made for those who do not have internet and therefore do not have the ability to access *Edmodo* like their peers.

Furthermore, assuming all students have access at home, clear establishment about frequency of participation within assignments is imperative, especially as it relates to grades, which are a top motivator for students to access *Edmodo*. Luna, Harry, and Ron all identified themselves as top ten participators in commenting on classmates' posts in *Edmodo*. Luna notes, "I'm probably at the end of the top ten, I guess, because I will comment on the assignment and then sometimes I will comment on what people say."

Harry describes a post that contained many comments. He remembers,

Like this one here, there was about ten posts on it. I don't know how many people are in the group, but there was about five or six people talking about the [topic].

Some people just post once and they don't post again. There's a few people that post a couple or three times.

Therefore, if students are motivated by the grade for the assignment or by the level of interest in the topic, they comment more frequently than they believe to be the expectation of Mrs. Granger. In contrast, Ron details how the time frame of the assignment might impact the frequency of student comments. He asserts,

It's just online discussion, and the discussions don't always get dragged out as much [as in class] because you know if people are [logging] on, if someone posts a comment on Tuesday but then on Thursday it's being replied to, it's like the person who originally posted it might not even go check again. So, they won't get another reply and have a full-on discussion.

Unlike the classroom, where discussion are tied to the minutes in the period, the timeframe of an assignment affects student motivation to access *Edmodo* and make comments on peers' posts.

The most discussed topic regarding frequency of accessing *Edmodo* is logging in to the website. All four participants discussed the frequency of accessing the website totaling 15 mentions. Luna notes that in *Edmodo*, there are notifications (these will be discussed in more detail in the Functionality section of this chapter) that remind students about assignments. She says, "It will tell you on the side if there's new assignments or if anything new popped up." Generally, Luna will access *Edmodo* once she receives a notification. She details,

For me, if I get an email from *Edmodo*, I have a tendency to go check it; whereas, when the teacher says go get it off the Teacher Page, later on [I think], “was I supposed to get check something? I don’t know.”

Notifications remind Luna to log in to *Edmodo*, which affects the frequency at which she accesses the site. Furthermore, Ginny describes an issue she had with logging in to *Edmodo*. She states,

I noticed a lot of kids actually have problems with this, like *Edmodo* won’t post something like you can log on fine, but when you type it up and then post it, it won’t post. And I was trying to comment on a couple of my peers’ um assignments and it said it was posting it, so I was ok, I went to type what I was about to say and then nothing was posting, so I refreshed the page and everything deleted.

The issue is that Ginny was able to log in to the site, but the post she had written did not appear. In contrast to Luna, Ginny seems to have experienced technical issues that impacted her ability to complete the assignment with the frequency of participation that she tends to have with other *Edmodo* assignments, which is an issue of accessibility.

Harry notes that he just logs in occasionally in case an assignment is available. He asserts,

I also check it periodically for reminders because sometimes they put up assignments or reminders for tests that come up. I use it more when I already know there’s an assignment on there that I need to contribute to. Unless there’s an assignment that I know of already on there I won’t necessarily be checking it unless someone told me that there’s something on there.

The frequency with Harry's logging in depends on his awareness of an activity or assignment. He goes on to note regarding his frequency of logging in that he checks:

More often when I know of an assignment on there that's continuing going on, like those seminar things. If I were going to, if there was nothing that I knew of, I might check it once a month just to see if there was something I had missed.

Harry made five total references that indicated that he and his peers feel *Edmodo* is "not checked as often. Because, we're not on there as often" as other social networks. Ron confirms this suggestion, noting that "I'm pretty sure most people don't use [*Edmodo*] as their primary website." He goes on to detail that he accesses *Edmodo* "Occasionally, I'll like check once or twice a month if we haven't been on there in a while just to see if [Mrs. Granger] posted something." Consequently, since students do not, in general, access *Edmodo* of their own accord, the teacher's expectations for frequency and clarity regarding accessing *Edmodo* become imperative to establishing the level access expected of students. Whereas, when researchers use *Facebook* with students for educational purposes, students are already accessing that SNS. With *Edmodo*, students are not accessing the site without express directive from the teacher and clear expectations about how accessing the site and completing the activities impact students' grades.

Functionality

The previous section of Chapter 4 detailed the data analysis for the category of accessibility. This section will explain what the data indicate about the functionality of *Edmodo* once students have accessed the academic social network site. Four sub-categories will be discussed: social media, pacing, multi-tasking, and curriculum.

Social media. *Edmodo* is an academic social network site. The site functions in similar ways to other social network sites. There are, however, a few ways that participants noted that *Edmodo* is different than other social networking sites. Ron mentions his desire to have a private message or chat feature available. He would like “somewhere that only my group sees, so if I posted in it, only people that I chose could see it instead of the entire class. You’re all in the same class, so it’s like everything is seen there.” The ability to interact outside the visibility of the entire group or entire class is one way that *Edmodo* is different than other social network sites. Ginny details another difference from other SNSs—she would like the ability to tag her peers, especially when she is making a comment or reply to a specific person. She states,

I’ve seen people try, but I don’t think it works. They’ve tried to do the @ sign to tag them like you would on *Instagram*. I don’t think that works. I think you’re just essentially ‘tagged’ when someone comments on a post you have a comment on. Because Ginny receives notifications, she is aware when someone comments on a post she has also commented on, but her desire is to be able to reply by tagging someone using the @ sign, which would specifically generate a notification to the person tagged.

Another difference is the ability to utilize multimedia within the website. Luna thinks she could share a video, but she is unsure how to do so. She mentions, “I probably would post [a video] to *Edmodo*. Figuring out how to do that. I’m pretty sure you can just copy the link or something like that. I don’t know.” In contrast, Harry is aware that video sharing is possible. He asserts,

I like that it’s accessible. I like that it’s a multimedia type thing so you can, you have the ability to post a video, a teacher has the ability to post a video that you

can respond to all in the same place. You can post videos, or at least links. But that was used once or twice this year. It could be used more to evaluate certain things. More so in other classes, like if you were in a Psych class or something, you could be posting discussions or seminars from YouTube people gave speeches or talking about things or studies.

Harry feels that this functionality might be more useful outside of the English classroom with other disciplines. Ginny, who enjoys using *Instagram* (a photo sharing social network), adds to the concern about multimedia sharing within *Edmodo*. She mentions, “I don’t think I’ve seen how we can show pictures, but I think that would be interesting if we could share a picture that maybe like related to the class.” Lastly, Ron is aware that there are multimedia capabilities in *Edmodo*. He recalls of a group of peers in class, “I think they actually did their presentation through it because they couldn’t open it in class, so everyone could just go on there and watch it.” The concern about the multimedia functionality in *Edmodo* appears to be that not all students are aware of the capabilities available within the site.

Other components of the layout of the site include the news feed, notifications, replies, and posts. These tools in *Edmodo* are similar to other SNSs. Three of the participants discussed the news feed with a total of four comments. Luna explained its location “down the middle” of the site. Harry references a feature he’s not familiar with (backpack for file sharing) and notes that “I don’t use that because I don’t really do anything on [*Edmodo*] that I would make. I would just write on to the wall itself.” The wall is another term to describe the news feed. Ron has seen others use the news feed for various reasons. He mentions,

I've seen some students post things on there like, one student said something about taking the AP test the day before, someone asks questions, some people have turned in projects through it because they couldn't get it through their email, so they just posted it on there so Mrs. Granger would have it.

The wall or news feed is where the teacher's assignment would appear, student posts would appear, and news for the class would appear. In addition, some students also receive notifications when changes are made to the wall or news feed.

Notifications are alerts to site users when someone has posted, commented, replied, or tagged a user in any of these. In *Edmodo*, students can receive notifications via email, or if they use the *Edmodo* app for smart phones, they are able to receive push notifications. Luna receives email notifications that prompt her to access *Edmodo* to see when a new assignment has been posted. Ginny uses the iPhone app to access *Edmodo*, so she receives push notifications there. She describes the content of notifications:

Usually notifications are saying, like, what Mrs. Granger posts. Sometimes they're not just the *Edmodo* prompts, they're like voting for what our next synthesis essay's going to be or she wants us to take polls or votes. So, that's really cool. But, other times it's what other peers comment on your posts or other posts you've commented on. So, it notifies you and lets you know that like "hey, this is what people are saying."

In contrast to Ginny, Harry—who also accesses *Edmodo* using the app—makes no reference to receiving notifications on his phone or via email. He does access *Edmodo* when he believes there is an assignment to complete for a grade, as mentioned in the

previous section. Ron says the notifications are a routine component in participating in *Edmodo*. He describes,

It's mainly just reminders. Mrs. Granger will always post a reminder like "Don't forget that essay's due on Friday" or "You guys need to start working on this." She'll post the rubric for something on [*Edmodo*] so we can check it there. It's mainly just full of reminders and things like that. I'd say that's the only routine kind of thing that would be

the notifications. In terms of functionality, the notification system is similar to notifications in other SNSs where the user is notified when a change, comment, or reply is made within the user's account.

Posts and replies also function in *Edmodo* similar to how they do in other SNSs. A post is when a user adds information, in this case when Mrs. Granger adds an assignment or another user leaves a message on the wall, to the news feed. Replies represent comments made by users in response to the post, or to other user's comments on the post. All four participants discuss posts and replies as part of the functionality of *Edmodo*. Luna discusses Mrs. Granger posting in the news feed, Ginny mentions commenting to her peers posts, Harry discusses that he's unsure of who the members of his group are when completing an assignment in *Edmodo* until he sees who comments and replies, and Ron discusses posting responses to the polls and the frequency of how his highly motivated peers post often. Ginny compares the functionality of these tools directly to *Facebook*. She states, "Like how we can comment on one another's posts just like *Facebook*." It is this similarity that makes *Edmodo* function in an accustomed way for students. The familiar nature of the functionality of the site is also discussed regarding

replies. Luna replies to her peers if the comment made was directed specifically to her. Ginny feels that the posts and comments create communication between classmates that is similar to other social networks. She says, “The fact that we can, you know, comment on posts and talk to one another. The fact that, yeah, the fact that we can interact with one another like even though it’s for a school assignment, it still can be used very social.” Beyond being social, posts and comments in *Edmodo* provide Harry a chance to read people’s responses which he mentions, “Because in class I might not even be reading the assignments given in by my friends. So, now [*Edmodo*] gives you a chance to read their type of responses.” This function in *Edmodo*, commenting and replying, allows for communication within the website that happens in similar ways to how other social network sites operate. Each of the participants has discussed the other social networks he or she uses in addition to using *Edmodo* for school.

All four participants mention their use of other social network sites, often comparing *Edmodo* to their experiences in these other sites. When asked which other SNSs he uses, Ron replies, “If you consider Reddit.com a forum, people just post pictures on there, there’s some things people post a thread on there.” He likens posting to a component of social networks. In another instance, Ron comments on the functionality of social networks, and mentions *Skype*. He follows up with a comment. Ron adds, “I don’t know if you consider it social media.” Harry mentions using *Vine*, a video sharing service. He asserts,

I like *Vine* because there’s just funny videos on there. It’s something you look at to pass the time. You see what your friends do. What your friends post. But, I don’t use those as often as *Facebook* or *Twitter* just because I don’t have time.

Harry uses *Vine* more frequently than *Instagram*, but he also mentions using *SnapChat*, an image sharing app. He further describes,

Twitter is more of a just one line of constant posts and then *Edmodo* has the side thing of links, too. *Twitter* is more a straightforward line of posts. *Edmodo* and *Facebook* are more. They branch off the other things. It's more elaborate.

Harry notes that *Twitter* is quite different than *Edmodo*, which is more similar to *Facebook* in its functionality.

When asked about her social media use beyond *Edmodo*, Ginny references *Instagram* in contrast to *Facebook* and *Twitter*. She says,

Yeah, I use *Instagram*, that's actually the only other one I use. I'm not, really, I don't like *Twitter* because it's just like *Facebook*. It's just, it's drama and it's pointless, but I do like *Instagram* because you can post pictures and it's kind of interesting to see what people take pictures of. And I feel like, on *Instagram*, people keep it mature and it's not like *Facebook*. They don't post things that are going to start and cause problems.

Ginny describes differences in the environment of the other social networks, which will be discussed later in this chapter. Her impression that *Twitter* is more similar to *Facebook* is in contrast to Harry's opinion. Luna describes her use of other social networks and how they function in comparison to *Edmodo*. She mentions, "In a sense, I find *Facebook* more average or casual for social networks. *Edmodo* is more school-like, so tossing in another social network, like *LinkedIn*, sounds more business-like." Additionally, Luna mentions three times that she uses *Skype*. The students' perception of these other social networks assists in understanding why the participants say that the functionality of *Edmodo* is

familiar. Each of them has used other social network sites before using *Edmodo* for English class.

The comparisons with other social networks reveal that all four participants feel that *Edmodo* has familiar functionality to other social networks. Luna compares *Edmodo* to *Facebook*,

I think *Edmodo* and *Facebook* are more alike because of the news feed and notifications but different set up. In *Facebook*, you're more likely to create groups. For profiles, there's a bit more expansion on it and you're more accessed into other things, not just for class.

Because *Edmodo* is for class, but has similar functionality to other social network sites, here specifically *Facebook*, Luna discusses the purpose. She states, "I think [the designers of *Edmodo*] did it more on purpose because people are so used to *Facebook*. The set-up is similar, so it isn't so complicated, but it's not as expanded as *Facebook*, so a smaller version" of that site. Ginny further extends this idea of familiarity when discussing how *Edmodo* looks, how its appearance functions. She states, "Because on the computer it does look like a social networking site, so it's more familiar." When prompted to discuss how the appearance functions to create the familiar feeling, Ginny develops her thought. She describes,

It looks a lot like my *Facebook*, actually. The color they chose was blue and I've noticed a lot of like the logos for social networking sites have been blue recently. Like, the way your photo um, your profile picture, it's on the left side just like our *Facebook* and the way that like you can comment. It's very similar to *Facebook* just the way you can interact with one another.

Harry explicitly comments on the awareness he has of the appearance of *Edmodo*. He adds,

Edmodo is set up most like *Facebook*. I think they were trying to do that, to set it up so that it looked like *Facebook* so it would be a familiar format to students and be something that they would be interested in using because it reminded them subliminally of this thing that they use outside of school.

He claims that the functionality of the similar appearance makes it easier to use *Edmodo* and that he did not have to spend time learning the format of the site before completing assignments there. Lastly, Ron brings unanimity to the opinion that *Edmodo* functions similarly to *Facebook*. He feels,

The layout is kind of like *Facebook*, the color scheme and the layout, all the statuses in the middle and the extra things on the side. It's like you see something someone posted, and you're like "Oh, I can reply on that." You can post it yourself, you have the different classes, on the side it'll be like this class, this class, this class, you can check it—it's like the different "like" pages you have.

This is further elaborated the similarity between the functionality of *Edmodo* and *Facebook* when he adds,

People pretty much picked everything up because we saw it, it was a familiar layout to them, so they were like, everything's kind of the same. You have your profile picture, your profile, all this stuff, comment and reply, so everyone's kind of seen it before.

This familiarity in the functionality of *Edmodo* translates to ease of use for the participants.

Multi-tasking. Rideout, Foehr, and Roberts (2010) describe media multi-tasking as using more than one medium at a time. One of the ways that the participants describe using *Edmodo* is in conjunction with various other media. Luna mentions that she goes back and forth between *Edmodo* and *Facebook* while completing assignments for school in *Edmodo*. She says in addition to using *Edmodo*, “I kind of multi-task. I’ll have *Facebook* up and I’ll be watching anime and I’ll be listening to music. Not at the same time. When I’m trying watch anime and listen to music it does not work.” Luna claims this helps when she struggles with writer’s block, that she goes away from the assignment to another page and returns when she is ready to complete that activity. Ron also mentions that he knows many people who multi-task when using *Edmodo*. He asserts that he can be found:

Watching videos, browsing things, playing games. A lot of people I know they’ll just have *Facebook* up in the background so they can communicate with friends while they’re doing something. They’ll get a message, they can be like “Oh, okay I can go do that,” but they’ll primarily be doing something else.

Ron compares this to the classroom environment where he feels the discussions have fewer distractions:

In class, we’re in there. It’s an actual conversation. We’re in groups. It’s what we’re doing. There’s no side distractions. If you’re at home on *Edmodo*, there’s so many other things you could be doing, so that’s kind of like a background thing.

Students who are completing assignments in *Edmodo* may be multi-tasking. This may create issues with the focus of assignments.

Pacing and focus. In contrast to Luna and Ron who report multi-tasking, Ginny describes her ability to pace and focus more clearly when using *Edmodo* from home. She feels, “In class, I feel like it’s more distracting for me sometimes because, I don’t know, sometimes I need to be by myself, isolated from people, just in my room, focusing on the assignment at task.” Using *Edmodo* provides her the opportunity to better pace her writing and focus on the assignment in comparison to the classroom environment which she considers frequently to be a distraction. Harry describes a similar feeling that *Edmodo* functions in a manner that allows students more time to thoughtfully complete assignments. He says,

Someone would be more indecisive about something they’re saying if they’re saying it. In person, you could tell that they weren’t quite sure about what they’re talking about, but if they have time to write a statement, then they have time think about what they say before they say it. Usually people are able to think about what they are going to say more when it’s not in person.

This idea of offering students the ability to pace is mentioned by Luna when she mentions that in class:

It’s kind of hard to work around that when you’re going at a faster pace. Online there’s more time within [*Edmodo*] versus actual personal Socratic Seminar when you’re back and forth talking, so it’s like hard to quickly go back like that because it’s just quick.

She appreciates the time that working independently in *Edmodo* provides for her to process her answers to discussions and debates. Ginny mentions that she often peruses others comments to help her craft her response to posts in *Edmodo*. She feels,

you definitely have to think, and you know sometimes it's difficult to answer, like you don't exactly know what you should put and then you reflect back on what other people say and see how they worded it sometimes. It's kind of like the thought sharing process almost, but through technology.

Furthermore, both Harry and Ron feel that the responding to assignments in *Edmodo* offers the ability to pace participation. This is a beneficial function of *Edmodo* in the eyes of all four participants in comparison to completing similar activities in class.

Curriculum. Mrs. Granger teaches Advanced Placement Language and Composition. This rigorous course requires students to write argumentatively and support assertions with evidence from texts provided. As such, this section, discussing how curriculum functions in *Edmodo*, will be specific to this specific class and may not be generalizable to other academic disciplines.

Class discussion provides students the opportunity to share opinions on topics and support their position with evidence. Initially, Luna and Ron discuss how *Edmodo* functions for Mrs. Granger to reinforce reading strategies for her composition course. Luna says, "Like if we're reading a book in class, we're told to discuss about certain parts about the book and then just bounce back and forth about it about whether we liked it or not." In this scenario, the teacher would post a discussion regarding recent reading. Additionally, Ron addresses the idea of *Edmodo* functioning for reading response. He describes, "Well, she puts a link to something to read, and then we would look at that and answer a couple of questions on that—almost like a worksheet, but it was on the internet." Here, *Edmodo* functions to support reading curriculum by offering a location for students to post answers to questions about a specific reading assignment.

Furthermore, three participants relate how class discussions, such as Socratic Seminars, happen within *Edmodo*. Ginny and Harry speak specifically about sharing opinions with peers. Ginny states,

I'm interested in what others have to say and I definitely am the type of person that if I don't agree with you I'm going to let you know and I'm going to tell you exactly why I don't agree with you.

Similarly, Harry views the interaction of sharing opinions as a discussion. He feels, "We get on the board and write about a topic, and I give my opinions on things to my classmates and basically just a discussion." Additionally, Ron comments that:

Usually it starts out as a few kids. They post their view on the subject, how they understood, how it came. Later on, people would be asking them why did they say that. They'd be like, "Well, if that's how you see it, what if this is the way?" and they'd start asking more questions and questions would be answered and [the group] would have a discussion.

These class discussions are not unique to *Edmodo*, but are an extension of activities that Mrs. Granger uses in her classes to provide students with practice gathering the skills necessary for the AP exam.

Skills for AP. Discussions in *Edmodo* take on a format similar to a Socratic Seminar where a student states an opinion and supports it with evidence. This is a skill that helps to prepare students for the argumentation requirement of the AP Language class. Harry describes,

They really go back and forth with people. They give a thorough statement about what their argument is and then qualify their statements and talk to other people

about what they wrote and ask why they wrote what they wrote. It's just a back and forth type of thing.

Not only do the development of argumentation skills help students in Mrs. Granger's class, but dissecting the prompts Mrs. Granger provided also helped Harry prepare to quickly formulate an argument. He details,

[*Edmodo*] helped me with establishing arguments faster, because basically when you're responding to these posts, you're giving a thesis statement. You're basically writing your introductory paragraph to an argument essay, and so by doing that so often and having to clarify my reasoning, it made it easier on the test to establish my position on the argument fast, so I actually had time to write when I took the test.

Being able to formulate arguments for discussion in *Edmodo* helped Harry learn to quickly establish an opinion and think of ways to support the opinion in a reasonable manner. Because Mrs. Granger uses released AP exam prompts, students were provided with the opportunity to learn to develop arguments quickly, which is imperative because the essay portions of the AP exam are timed. Ginny extended this idea by stating:

So, definitely, [activities] were in the form of the essay questions. And, if we did those and we actually dissected exactly what we needed to know, then we would be, without even knowing, we're preparing ourselves for the AP test.

Therefore, *Edmodo* provides a platform for students to practice skills necessary to be successful with the curriculum established by the teacher.

Conventions. All four participants discussed how part of the functionality of *Edmodo* is that students consider it an academic environment. This will be discussed in

detail in the next section of Chapter 4. However, being that students consider *Edmodo* an academic environment, or a social network for school, all four participants addressed that students tend to take more care when using conventions. Conventions should be defined here as described by Education Northwest (2013) as the mechanical correctness of a piece of writing, including grammar, spelling, punctuation, capitalization, and paragraphing.

Luna says she uses more formal conventions in *Edmodo* in comparison to *Facebook*. She comments she would use better “grammar than just how I normally text and type.” Ginny says that her work in *Edmodo* has definitely improved her writing. She adds, “I’ve always enjoyed just using proper grammar and punctuation. I feel like it’s what we should do. We should not write like we’re in kindergarten again. We know how [to write].” Harry feels he may use better diction in *Edmodo* and he states he is critical of how his peers use conventions in *Edmodo*. He asserts,

I’m looking at how they write. It seems like some people are writing as if it were a *Facebook* post and some people are writing it as if it were the introductory paragraph to an essay. And so, I’m definitely looking at the way they write because I’m actually like impressed, like “Oh, they’re good writers.”

Ron adds that he has not really seen too many errors in conventions in *Edmodo*. Because the environment is considered academic, that the social network is for school, all four participants note that students use better conventions overall than they do on other social network sites. The similarity to other social media sites, student pacing and ability to multi-task, and students’ sense that better conventions are important comprise various functions of *Edmodo*. Much credence can be paid to these functions since the

environment within *Edmodo* dictates that it is an academic social network site and it has distinction with other social networks that students do not use, in general, for school.

Environment

Academic environment. *Edmodo* is an academic social network site, meaning that the intended use is for academic purposes. There were twelve specific references to the academic environment within *Edmodo* and how that term, or its synonyms such as *scholarly* or *intellectual*, describes *Edmodo*. As Harry notes, “There would always be an educational purpose behind anything that’s posted on that website.” Furthermore, both Ginny and Harry discuss that *Edmodo* is a better fit for use with honors and AP students.

Uses of *Edmodo* in AP versus core classes. Ginny feels that the environment in *Edmodo* is best suited for AP students. She asserts, “I definitely like it for an AP class because the way students, I don’t know, the way we respond to one another is very intellectual, I think.” The intellectual environment in *Edmodo* matches how Ginny feels about the environment in her AP Language and Composition class. She continues,

I feel like when you’re in an AP class, especially English, I feel like it’s almost a requirement to have *Edmodo* because it’s such, like I chose to be in AP English because I love the fact that it is such an advanced class and *Edmodo*—the posts that Mrs. Granger has put on there is so advanced.

Ginny further explains the thought process needed to complete the assignments provided by Mrs. Granger in *Edmodo* reinforce skills needed in AP Language. She adds,

I definitely think *Edmodo* is the right place for an honors class because its students, they’re prepared. They, like um, know what kind of assignments are

going to be on there; they're not going to be simple questions. So, I definitely think it's good for an AP class.

Ginny reflects on the type of assignments she and her peers have completed using *Edmodo*. She feels,

Edmodo is primarily, I think, for discussions and I don't think the regular classes have done it. But, I mean, it all depends on the students, if they're willing to do it. But, I've noticed that honors and AP kids are more dedicated to these kinds of assignments.

Although she feels the environment is best for honors and AP classes, much of her observations are regarding the assignments and what she perceives honors and AP students are willing to do for assignments.

Harry's perception of the academic environment in *Edmodo* recaps Ginny's commentary. He also feels that *Edmodo* is better suited for use with honors and AP students. Harry asserts,

The one core class I am in is the one that has the other *Edmodo* account. No, it's not going to be used as frequently as AP students because they're not going to care as much. The whole reason you're getting on *Edmodo* is because of your grade. You're caring about schoolwork and a core class that is not AP or honors, the type of student that's in there is different.

Harry asserts that the type of student in core classes is different, and that students who take honors and AP classes are better suited to the environment in *Edmodo*. The role of the teacher in translating the academic environment from the classroom into *Edmodo* becomes paramount in creating the academic environment there. Because the students are

completing assignments that are for an AP class, this impacts their view of the academic environment.

Teacher role. Mrs. Granger created an environment in *Edmodo* that reinforced skills she teaches to her students to be successful on the AP Language and Composition exam. The assignments are her choice. How she uses *Edmodo*, from the expectations to the group assignments, are determined by her as the teacher. With that said, three of the four students noted they would take a class, all other areas the same, from a teacher they knew would use *Edmodo* as part of the class. Ron was the dissenter. He felt,

I'm going to be honest and say the [teacher] who doesn't use it. I wouldn't have to go home and go on the internet. It's like I only do the class in the class, so it's like once I'm out, I'm out. Instead, like, "Oh, I got to do that *Edmodo* assignment." It's almost like more homework.

Ron described himself as a lazy student, so this opinion is in line with Ginny and Harry's commentary about student motivation to participate and benefit from *Edmodo*'s academic environment. In contrast, Harry doesn't view *Edmodo* as more work. He feels, "It's just part of the class." Activities in *Edmodo* are no different than any other type of work assigned, so it would not bother Harry to take another class from a teacher who uses *Edmodo*. Because she describes herself as naturally philosophical, Ginny would choose a class with *Edmodo*, especially because of the academic environment she described previously. Luna, who benefits from using *Edmodo* because she is home often and babysits after school, comments, "In my opinion, it probably seems a little better to have a teacher that uses *Edmodo*." Of the four participants, only one viewed the use of *Edmodo* in a negative way.

Groups and peers. Because Mrs. Granger organized students into color groups, each participant discussed being in groups. Upon further delineation, the discussion of groups reveals three topics: group work, getting to know peers, and peer reactions. Each of these relates to the environment and community in *Edmodo*.

Luna appreciates that she is able to work in groups online in *Edmodo* because she is not connected to some of them in other social network sites. She states,

Being able to specifically get together for class and, if you're not connected to any of your classmates on other social networking stuff, you can actually talk to them that way. So, it makes that easier if there's an assignment and you can't be at school for a while, so it's useful that way too.

Luna appreciates the ability to complete group work in *Edmodo*. Ginny adds that in *Edmodo*, the teacher has to establish the groups. Although, Harry hypothesized how he would establish his own group if that was an option. He mentions, "So, if I wanted to have a successful group, then I would pick people that I know are genuinely going to try to contribute." Harry also appreciates how *Edmodo* "extends your classroom interaction to outside the classroom with students because if you're given an assignment you wouldn't be collaborating with the same students that you are inside of class." The group work in *Edmodo* provides additional opportunity to work with students outside of those who Harry normally works with inside of class. Ron views the environment for group work in *Edmodo* differently. He asserts, "It's just less involved than it would be in class because there's less you can post." Therefore, in *Edmodo*, Ron views the environment as limited for group work, because he perceives there to be a limit on how much can be posted. He compares group work in class to group work in *Edmodo*, stating that *Edmodo*

is just a continuation of class. Ron argues, “I’ve really, become more acquainted with [peers] through Socratic Seminars and things like that and group work. *Edmodo*’s kind of like a continuation on that.” Ron is not the only participant to note that *Edmodo* is an environment where he gets to know his peers better.

Getting to know peers. Luna feels that interacting in *Edmodo* allows her to get to know her peers better. She feels, “You already know them from being in class, but then you’re hearing their opinions you understand them more also.” She adds that this environment allows her to know her peers better because, “I guess how I’m able to communicate with students. Because, in my class, I’m not like *Facebook* friends with a whole lot of them. So, I don’t talk to them outside of class a whole lot.” Ginny agrees with Luna’s assertion that she knows her peers better because of *Edmodo*. She states, “I definitely feel like I do know them better because, you know, in class not everyone is going to participate in any of the activities.” The requisite participation in Mrs. Granger’s *Edmodo* assignments allows students to get to know each other better than they would from class alone. Harry’s opinion is similar. He notes, “I know [my peers] better personally because I just see them in class every day and talk to most kids and just get to know them based on talking to them about whatever comes up in class that day.” *Edmodo*, he feels, offers a chance to know his peers more deeply. Harry says *Edmodo* is, “Better in terms of classroom environment. Better in terms of getting to know what they believe in and what they’re...getting a primitive sense of what their beliefs and stuff just based on the prompts.” Ron senses that more people are interacting outside of school since their interactions in *Edmodo*. He says,

I feel like more people, like they're actually communicating outside of school, so it's like it's almost like acquaintances are becoming friends, in a way. They're like "Oh, I know him." It's actually talking to people outside of school instead of just in class.

All four participants feel that using *Edmodo* offers them an opportunity to get to know their classmates better than only interacting with them during class time.

Peer reactions. One benefit the participants discussed to using *Edmodo* is not having to worry about immediate peer reactions to their work or opinions shared in *Edmodo*. Since students respond to prompts and reply to comments at various different times, three of the participants felt this allowed them not to worry about their peers' perceptions of their own work. Luna states,

I guess it's more of not having to directly have to deal with what the other person will think. It's more of "Ok, so if I just be able to freely discuss this online." I don't have to entirely worry about the other person's opinion on me versus the details of what I'm saying.

This is markedly different for Luna, who describes herself as shy until she gets to know someone well. In *Edmodo*, she likes:

being able to throw stuff out there to talk about. I guess because when you're talking person to person, you're more self-conscious on what you're going to say versus online. You can be like, "Okay, well I think this is what other people's going to say about it, but whatever, I'll just post it." You're more likely to just go with it than talking.

Luna takes more academic risks when she is working in *Edmodo* than she does in class.

She makes two additional references to being self-conscious in the classroom compared to when she works in *Edmodo*. Similarly, Ginny makes a comment about being free from worry about peer reactions in *Edmodo*. She asserts,

I feel I'm able to state and defend my position in *Edmodo*, like greater than when I'm around people because I feel like I'm able to, you know, state it then and there and I won't have to hear what other people have to say. Like when I'm in class and people are talking around me, like it might change my position right away and then I get confused. So, I think it's a lot easier on *Edmodo*.

The environment free of immediate peer reaction benefits Luna and Ginny in that they are able to formulate arguments and support their positions without worry of what their peers will immediately say.

Ginny also makes a somewhat contradictory comment about a time when she perceived her peer felt her comments were an attack. She remembers,

A girl, I remember I didn't agree with her position at all and so, like I responded and I said, "I see what you're saying, but I don't agree with you." Then she felt like I was kind of attacking her, so she kind of freaked out a little.

Additionally, Harry admits to being judgmental about his peers based on their writing. He notes,

Reacting to opinions or just reading opinions of my classmates, sometimes I'll read what someone wrote and I'll be like, "Wow, you sound really dumb right there." I wouldn't say anything to them, but it makes me get, gives me an idea of how they write. Other people, I'll be like, "Wow, that's a good. That's an educated opinion that they gave. I didn't even think of that viewpoint on this."

So, for Luna and Ginny, the environment provides an opportunity to be free of the concern of peer reactions. For Harry, it offers him a chance to evaluate his peers' writing and how they support their arguments.

Tone and body language.

Social cues. In *Edmodo*, tone and lack of body language are what create the environment. Luna referenced being self-conscious about peer reactions to her writing and opinions. This may be accounted for when discussing that online environments lack social cues. Unlike in a Socratic Seminar in the classroom, where students are able to see the body language of their peers, *Edmodo* is not a face-to-face environment and does not provide students with social cues to use when gathering feelings about a situation. Ron notes, "If you're in person, you can express your emotions more like clearly so people will actually know how you're pronouncing [words] and they'll understand you a lot better." For Ron, being in person provides him a better chance to be understood in comparison to *Edmodo* where his writing would have to stand on its own to convey his point. He goes on to say, "It's harder to like be—like show more emotion on [*Edmodo*] because you have to type everything. You're not actually there in person." Harry conveys a similar point. Not only are the social cues lacking in the environment, but the amount of time before a classmate responds impacts student perceptions about what is being said in the discussion or the point being argued. He adds,

In person, it sounds less mean because you're actually having a discussion. If I had attacked someone's position on *Edmodo*, you can't see anyone's body language. You can't see that I'm partially joking around with them or whatever; you just don't get that over an electronic [discussion], so I'd be more likely to do

that in person because we can actually have a discussion about it. Because, if I attack someone and posted something and it was Saturday, and I wasn't going to go on again, and that was the last thing I said to the person, then it might not even matter that I made the discussion point because we're not actually discussing.

Although the participants noted that they feel they know their peers better in *Edmodo*, Harry and Ron feel like the lack of social cues impact the messages that they are sharing with their classmates. Harry feels that this is a positive component of *Edmodo*. He notes, "But, usually people are able to think about what they are going to say more when it's not in person." Although there is more time for thought and reflection, both note the lack of social cues when participating in online discussions in *Edmodo*.

Scholarly tone. In the absence of social cues, the tone in *Edmodo*'s environment appears to be implied in its purpose. When asked why she described *Edmodo* as scholarly, Luna answers, "I guess because you use it for school, you know? The fact that you're just interacting with your classmates and your teachers, so it's not like you are interacting with some classmates, the majority of your friends, and family." The nature of the interactions establishes the scholarly tone. Luna compares the interaction in *Edmodo* with *Facebook*. She adds, "Because it's school-related, [it's] scholarly. You're talking about things intelligently versus just being normal, talking about certain things. Even though, on *Facebook* you can discuss about things very intelligently, you're more relaxed in how you convey things." Ginny builds upon the comparison with *Facebook* when describing *Edmodo*'s environment as academic. She notes,

I like how we can comment on one another's posts just like *Facebook*...I definitely notice that people are much different on how they act on *Edmodo* and

how they you know comment on some posts. I don't know, like I see like some kids, including me, I respond to it in a like very formal way. Like our tone's very different. I don't know. I feel like everyone on *Edmodo* is very like intellectual. Ron further describes the environment as informed. He notes, "Pretty much, you'll have a discussion with the other students in the class about that topic, you know. Educational, you know. Informed." When asked to describe his demeanor in *Edmodo*, he adds, "I'd say I'm usually a little more professional on *Edmodo*." In the participants' words, *Edmodo*'s environment is scholarly, intellectual, school-related, intelligent, educational, and informed.

Student persona. The identity that a student portrays to his peers in class or on-line is defined here as his persona. All four participants describe various situations where their persona is revealed in class or on-line in *Edmodo*.

Persona in class. Ginny describes the debates or discussions in class as being heated. She states, "It can get pretty heated in my classroom when we debate about things because obviously we don't all agree." Although the topics are similar in *Edmodo*, Ginny perceives that some people feel attacked during discussions. Harry has a similar opinion about how people convey themselves in class. He feels,

In class, the discussions get a little bit more heated, more involved, because on the computer you can't really see the emotion behind what someone puts there, it's just words on a screen. In class, we're in there. It's an actual conversation. We're in groups. It's what we're doing.

When in the classroom, the interactions become what both participants describe as heated. Ron feels he reveals a truer persona in class because often his views are difficult to convey in writing. He adds,

A lot of the time, I've had opinions that are different than everyone else's, but it's kind of hard to explain in like writing or typing, so I feel like it would be easier if I were in person because then I have like hand gestures and things like that.

This relates to the previous discussion on body language. In class, Ron feels his body language would help him convey his point since he feels he struggles to do so in writing.

Persona in Edmodo. Luna describes herself as someone who is on the computer a lot. Additionally, she has described herself as shy and quiet. In *Edmodo*, she is better able to interact with her peers. She states, "I'm more likely to probably participate in *Edmodo*. I guess I don't have to talk straight away." The ability in *Edmodo* for Luna to contemplate what she wants to say and put thought into her statements helps her reveal her persona better on-line than in class. Ginny agrees that she acts differently on-line than she does in class. Although she describes interactions in class as heated, she also feels that there is benefit to *Edmodo*, specifically for shy students. She recalls,

Like, I have a friend in my class, very, very shy, he doesn't really want to raise his hand to comment. But on *Edmodo*, since you're required, since it is a grade, I feel like people like those shy kids are able to state their position without fearing about what other people think.

Ron feels like there is no difference in how he behaves in the online environment. He says, "I would reply the same I would on *Edmodo* than I would in class. That's kind of

how I do things. I try to look as much as I do in person.” In contrast to Luna and Ginny, Ron feels he portrays the same persona in class as in *Edmodo*.

Conclusion

Analysis of the data show that *Edmodo* and *Facebook* share characteristics, especially where Virtual Community of Practice is concerned. Furthermore, when considering accessibility, *Edmodo* and *Facebook* are dissimilar because students do not access *Edmodo* of their own accord as they do with *Facebook*. Where functionality is concerned, *Edmodo* is similar to *Facebook* and other social media sites; however students are not as familiar with or wish that *Edmodo* had similar tools such as tagging in *Facebook*. The culture of academics appears to be inherent in *Edmodo* because the ASNS is “used for school.” Teachers seeking to use *Edmodo* may capitalize on the culture of intellect that students describe when interacting in *Edmodo*, where students report they pay closer attention to writing conventions. Furthermore, students report they reveal a truer persona in *Edmodo* than they do in class, and that they know their peers better from interacting with them in *Edmodo*. The implications of these findings will further be discussed in Chapter 5.

Chapter 5 - Summary of the Study

This dissertation examined four junior level AP Literature students' interactions in *Edmodo*. Students in this course were required to use *Edmodo* to respond to class assignments provided by the teacher, to provide feedback to their peers on presentations and writing assignments, to communicate with each other about school related topics, and to receive reminders from the teacher regarding assignments due in person in the classroom. The participants, chosen based on their level of Internet Connectedness (Jung, 2008), represent various typical AP students. I interviewed students about their interactions in *Edmodo*, seeking to chronicle how each student interacted in *Edmodo* to draw a comparison between those interactions and prior studies of students' interaction on *Facebook*. The analysis of the result seeks to inform teachers intending to use technology in their classrooms, specifically those interested in using an academic social network site to extend classroom activities into cyberspace. These results of this study provide teachers a picture of student interactions in *Edmodo*. A goal of this study is to inform teachers about how students interact in *Edmodo* compared to *Facebook*. Initial coding of student responses utilized the Virtual Community of Practice lens to categorize responses into five areas: Shared Repertoire, Joint Enterprise, Mutual Engagement, Community, and Learning Acquisition and Identity. Further coding of the data revealed three additional categories for discussion: accessibility, functionality, and environment. Understanding how each of these three categories depict student culture and community manifesting in the ASNS will help educators better integrate technology into their classroom, or outside of classroom, practice.

The field of education has seen extensive research into how children interact in various parts of their lives. Ito (2010) describes how this affects current youth. She notes, Popular culture and online communication provide a window onto examining youth practice in contexts where young people feel ownership over the social and cultural agenda. The commitment of taking youth social and cultural worlds seriously has been applied to media studies by a growing number of researchers who have looked at how children engage with media in ways responsive to the specific conditions of childhood. (p. 9)

The specific condition here is the academic realm of students who are now able to use a platform for school that is similar to those that they have used for social and cultural growth for over a decade—*Facebook*.

Wenger (1998) describes how Communities of Practice engage learning in knowledge acquisition, but this original model did not address the social side of learning. Murillo (2008) operationalized Wenger's CoP model to adapt it to online settings. He called his interpretation Virtual Community of Practice, and he delineated online interactions into five categories: Shared Repertoire, Joint Enterprise, Mutual Engagement, Community, and Learning Acquisition and Identity. Through these five categories, interview questions were developed to ascertain how students interact in *Edmodo*. Using a semi-structured interview protocol, I interviewed the four participants using a conversational partners (Rubin & Rubin, 2005) style. During the course of the interviews, additional themes came to light which then became part of the interview protocol.

Using the Virtual Community of Practice as a frame to engage in discussion about interactions in *Edmodo*, this research intended to provide rich description of how students interact so that teachers who seek to use academic social networks will have a better understanding of the nature of these interactions. This research sought to answer the research question: How do student interactions in *Edmodo* compare with their interactions in *Facebook*?

**Answering the Research Question: How Do Students Interact in
Edmodo Compared to *Facebook*?**

Virtual Community of Practice: Comparison to the Literature

Initially, the student responses to the interview questions were coded by the five Virtual Community of Practice categories. These categories delineated how students interact within that cultural construct. In general, students interact in similar fashion in *Edmodo* as they do in *Facebook* when using that social network site for school work with a few distinctions.

The shared routines described under the category of Shared Repertoire are similar in *Edmodo* and *Facebook*. Resources are shared using the wall or news feed. In addition, in *Edmodo*, these tools include the use of notifications, especially of assignments and reminders from the teacher, and posts to the wall. A tool used frequently in the participants' classes is polls where students vote. Furthermore, *Edmodo* is viewed as convenient and familiar because its layout and functionality are similar to *Facebook*. Students found accessibility convenient, especially for the three participants who view *Edmodo* from their cell phones. In contrast, students would like the ability to tag specific peers when directing a comment to someone specific. This tool is capable in *Facebook*,

Instagram, and *Twitter* by using the @ sign to link to a specific user profile. Another tool available in *Edmodo* that students did not use involves document sharing. Harry mentioned being aware that this tool was available, but asserts, “I don’t really do anything on [*Edmodo*] that I would make.” Whereas, the tools to share documents exist, Harry feels that he only responds to assignments created by the teacher.

Research regarding *Facebook* shows that where Joint Enterprise is concerned, increased communication does not necessarily increase focused discussion. Participants felt that the ability to tag peers would increase the focus of discussions. When topics seem to veer from the original intent, participants mention using questions to steer group discussions back on track, or waiting for the teacher to police the on task nature of topics. Because Baran’s (2010) study indicates that roughly half of the students did not read all of the components of an assignment when in *Facebook*, the small group structure of Mrs. Granger’s *Edmodo* activities assists students in having fewer posts to read and respond to in comparison to Baran’s sample which included 32 students. For *Edmodo*, participants were unsure how many replies to peer posts were required. Therefore, focus of discussion and remaining on topic must be directed by the teacher and reinforced as a component of grading to increase accountability where focused, on-topic discussions are concerned. Moreover, participants indicate that the academic tone of *Edmodo* is inherent in maintaining focus in discussion. Ginny commented, “I think that between *Edmodo* and other social network things we definitely keep it at a school appropriate level.” Based on the data gathered from participant interviews, the scholarly tone described by all four participants is a key difference between *Edmodo* and *Facebook* that allows discussions to stay on-task and focused.

Collaborative problem solving and debate through frequent interactions constitute the category of Mutual Engagement. Research into *Facebook* reveals that “friending” provided opportunities to network (Steinfeld et al., 2008) that would likely benefit users in the future. Within *Facebook*, tools are provided to encourage and sustain collaboration amongst its users and the tools function similarly to how people interact face-to-face. In contrast, the virtual environment *Edmodo* affords in cyberspace differs greatly from face-to-face interactions. Participants see this as a benefit in *Edmodo* since it offers better opportunity for shy students to increase participation and students worry less about the judgment of peers, have more time to construct responses, and are able to multitask while completing assignments.

In contrast to Steinfield et al.’s (2008) discussion of the benefits of ‘friending’ in *Facebook*, students do not ‘friend’ each other in *Edmodo*. Furthermore, within this specific population, Mrs. Granger further divided students by assigning them to color groups within *Edmodo*. The inability to unfriend, leave a group, or hide peers (all capabilities possible in *Facebook*) is a distinction between the two environments. The collaboration occurring within *Edmodo*, specifically because the interaction is tied to a grade, is not optional. Additionally, the frequency of participation depends not only on the grade, but also on the timeline established by the teacher. Ron commented, “[Mrs. Granger] usually gives us a week to go through and do [the assignment]. She’ll assign it Monday and I’ll go on Thursday night and there’s only been one or two people who’ve commented so far.” This is further reinforcement that the teacher expectations must specifically detail the level and frequency of participation. Ron notes that, “I’m pretty sure most people don’t use [*Edmodo*] as their primary website.” Therefore, students must

have clear understanding of the level of frequency of participation expected by the teacher for each assignment.

In the category of Community, described as how members know each other, Luna summarizes what all four participants indicate: that students know each other better by using *Edmodo*. She says, “Being able to specifically get together for class and if you’re not connected to any of your classmates on other social networking stuff, you can actually talk to them that way.” This correlates with Koles and Nagy’s (2012) findings that online relationships lead to positive school relationships, and Halverson (2011) who found that creating a group within *Facebook* improves how well students know each other. Students understand that *Edmodo* is for school, and one of the clearest benefits of using *Edmodo* with students is so that they get to know their peers better than they would just by interacting in class. Ginny states, “The fact that we can interact with one another, even though it’s for a school assignment, it still can be considered social.” Furthermore, shy students, as mentioned by both Luna and Ginny, are more likely to participate in *Edmodo* than they are in person in the classroom, meaning that more people will get to know them through their completion of their school assignment. There are more similarities between student interactions in *Edmodo* and *Facebook* in this category, specifically in terms of community and how well peers know each other.

New knowledge and skill gained through participation in the group describes the final category in the Virtual Community of Practice model. Grosbeck et al. (2011) studied students using *Facebook* for school. Their findings show that almost one third of respondents are comfortable using *Facebook* for school work. Bicen and Cavus (2011)

found that student use of tool within *Facebook* can impact knowledge and motivation for school activities. In *Edmodo*, Ginny notes that,

The way we [AP students] respond to one another is very intellectual, I think, versus *Facebook* where people tend to use improper grammar, spelling, and punctuation. I think *Edmodo* makes you remember “this is for a class.”

In talking with Mrs. Granger, she clarified that she did not provide specific directions regarding the use of conventions in *Edmodo*. Ginny’s impression that students use better grammar than they do in *Facebook* reinforces the idea that student knowledge is augmented when in *Edmodo*. Ginny also noted that there are fewer distractions when completing work in *Edmodo* at home, stating that she can better focus on her school work. The lack of distractions may allow for better self-reflection in the area of writing conventions when composing in the virtual environment.

	Shared Repertoire (tools to accumulate routines)	Joint Enterprise (on/off topic, remaining focused)	Mutual Engagement (collaborative problem solving and debate)	Community (members know each other and have a sense of community)	Learning and Identity Acquisition (new knowledge or skill gained by participation)
<i>Facebook</i>	+ Sharing of resources on the Wall	+ Group members dictate what is appropriate to discuss. Δ Increased communication by group members does not guarantee equal participation by group members.	+ “Friending” allows individuals to keep in touch with a wide network of individuals who might be called upon in the future. + Provides the tools (wall, pokes, messaging) + Tools are used similarly to the way people interact in face-to-face situations.	+ Relationships fostered online (in <i>Facebook</i>) increase positive attitudes within the walls of the school. + Students welcome using <i>Facebook</i> to supplement curriculum.	+ Students feel comfortable and motivated using <i>Facebook</i> to research, discover, create and fulfill school assignments.
<i>Edmodo</i>	+ Notifications, especially reminders from the teacher + Profile + Make up work + Work convenience + Polls + Familiar layout and navigation + Accessing via cell phone + Posting to wall - Inability to tag peers - Document sharing - Logging in and posting motivated by grades	+ Scholarly tone in the environment + Better use of conventions + Students police on topic discussion by using additional questioning, but also assume teacher will do the same + Discussions can get heated, but remain appropriate - Inability to tag so that focus of discussion can remain on topic	+ Shy students participate more often + Convenience of use from home + Better focus on thoughts + Less immediate judgment from peers + Ability to multitask + Collaboration in small groups established by teacher + Teacher reminders, encouragement + Extension of classroom - Some kids treat as casual like <i>Facebook</i> - Frequency of participation depends on teacher timeline - Not novel because of similarity to <i>Facebook</i> - Not all students will participate	+ Get to know students better than just in class + Interact at own pace, more time to compose thoughts + Understand assignment if absent + More communication with peers + Still social even though it is for school + Shy students participate more than in class - Those highly interested in discussions will continue to access beyond the grade requirement	+ Get to know students better than just in class + Increased practice in writing arguments and supporting with evidence + Students would choose a teacher who uses <i>Edmodo</i> + Seeing peers’ thought processes - Use of appropriate conventions - Awareness of academic audience for writing - Need for internet to complete assignments

Figure 2. Comparison of *Edmodo* and *Facebook* as Virtual Community of Practice.

Implications for Education

Accessibility, Functionality, and Environment

One of the goals of this study was to describe how students interact in *Edmodo* to provide the educational community with an idea of how student interactions in *Edmodo* reinforce culture and community in cyberspace. After looking at the data regarding student interactions using a Virtual Community of Practice lens, a secondary coding of student responses indicates there are three categories that reveal additional information about how student interactions in *Edmodo* impact the culture and community of Mrs. Granger's AP Language and Composition courses. The additional categories that reveal a rich description of how students interact in *Edmodo* are: Accessibility, Functionality, and Environment.

Accessibility. All students with the ability to do so access *Edmodo* using their cell phones. Only Ron, who does not own a smart phone, did not access *Edmodo* from his cell phone. Both Harry and Ginny commented that they read *Edmodo* from their cell phones, but both complete assignments from iPads or computers. An implication for schools without broad computer access for all students would be to use smart phones in the classroom to provide students the ability to access *Edmodo* without having to be right in front of a computer. Unfortunately, the school where the participants attend had a no tolerance policy for cell phone usage in the classroom. Therefore, student experience with using their phones to access *Edmodo* in class was limited.

Three of the four students mentioned the convenience of using *Edmodo* for school work. For Luna, convenience meant ease of use since she is home babysitting; whereas, for Harry convenience translated to the extension of school work from the classroom

beyond the school day into the virtual environment. Harry also mentioned how convenient *Edmodo* is for working with various students. He notes, “You wouldn’t be collaborating with the same students that you are inside of class.” Furthermore, Ron enjoyed the convenience of completing polls in *Edmodo*. The convenience of polls relates to offering students choice in their curriculum, which directly relates to student motivation for accessing *Edmodo*.

Student level of interest determines students’ motivation to access *Edmodo*. Three of the four students discussed how high interest activities and topics are more likely to instigate student participation in *Edmodo*. Ginny and Harry both mentioned that they would continue to log in and read *Edmodo*, even if no grade were tied to doing so, if they were interested in the topic or activity. Since all students mentioned grades as a motivation, and two of the four would continue if grades were not associated with an assignment, offering choice and variety in assignments in *Edmodo* becomes the top priority for teachers who use *Edmodo*. Along with the teacher clearly conveying expectations for frequency and quality of access and comments/replies, Ron suggests that teachers, “Give [students] more of an opportunity to be a part of their curriculum...more of an opportunity to be a part of their education.” This would motivate students to be more engaged in the assignments in *Edmodo*.

Lastly, the teacher’s expectations of students dictate much of why students are motivated to access the site and how much they interact with their peers while on the site. Both Ron and Luna mentioned that they were unsure how often to access *Edmodo*, and all four participants discussed grades as the top motivator for logging in to *Edmodo*. They agree that the initial reason for accessing *Edmodo* is to earn a grade; however, once there,

student interest in the activity, as well as choice in the assignment, is what keeps students engaged in their participation in *Edmodo*.

The frequency at which students will access *Edmodo* is directly impacted by the availability of internet access. Ron does not have internet on his phone and could not access this convenient way like his three peers. Additionally, Ginny had issues with the availability of internet at home. Beyond ability to access due to limited internet access, teachers using *Edmodo* must be explicit about their expectations about the frequency of participation within each assignment. Since the data indicate that student participation in *Edmodo* is primarily motivated by grades or the level of interest of a topic, teachers must have clear expectations about when a student must access *Edmodo*, how they must interact with their peers, including the frequency of comments and replies. Providing students with input on the assignment is secondary after sharing the expectations for accessing *Edmodo*. Luna mentions that she also logs in after receiving notifications, whereas Harry logs in when he believe there is an activity or assignment to complete. Harry, who made five total references stating that *Edmodo* is not frequently checked, said *Edmodo* is “not checked as often. Because, we’re not on there as often” as other social networks. Consequently, since students do not, in general, access *Edmodo* of their own accord, the teacher’s expectations for frequency and clarity regarding accessing *Edmodo* become imperative to establishing the level of access expected of students.

Functionality. On the whole, students felt that *Edmodo* functions like other social network sites, specifically *Facebook*. There are, however, a few ways that participants noted that *Edmodo* is different. Ron mentions a desire to have a private message or chat feature that only his group could see. Ginny mentions that she would like

the ability to tag her peers, similar to using the @ sign in *Instagram*. Another difference is the functionality of using multimedia within *Edmodo*. Luna was unsure if she could share a video, but Harry mentions that he likes *Edmodo* because “you have the ability to post a video, a teacher has the ability to post a video that you can respond to all in the same place.” He further suggested that this functionality might be more useful beyond the English Language Arts classroom.

In discussing the functionality of the layout of *Edmodo*, all four participants comment on its familiarity. Participants mention the usefulness of notifications most frequently of all tools mentioned. Three of four participants rely on notification as a function of using *Edmodo*. Luna receives email notifications, Ginny has push notifications on her iPhone, and Ron comments that notifications are the “only routine kind of thing” in *Edmodo*. These notifications provide users with information when a change, comment, or reply is made within the account. Beyond notifications, post and replies are mentioned as other useful tools in *Edmodo*. Ginny compares the functionality of these tools directly to *Facebook*. She states, “like how we can comment on one another’s posts just like *Facebook*,” the similarity creates a familiar environment which makes *Edmodo* easy to use for the participants.

Because all of the participants use other social network sites, their experiences in how *Edmodo* functions are familiar. Ron mentions using *Reddit* and *Skype*. Harry discusses *Vine*, *Facebook*, *Twitter*, and *SnapChat*. Ginny only uses *Instagram*, besides *Facebook*. Luna uses *Skype*, and also references the use of *LinkedIn*. Not surprisingly, all four students directly compared the functionality of *Edmodo* to *Facebook*. Having anecdotally heard that students felt there were similarities, I took special care in avoiding

the mention of *Facebook* during interview questions. I asked how *Edmodo* compares with other sites that the participants have used. Each participant made a direct comparison with *Facebook* even though each has used multiple other sites. Luna felt, “I think [the designers of *Edmodo*] did it more on purpose because people are so used to *Facebook*. The set-up is similar, so it isn’t so complicated.” Ginny notes the appearance of *Edmodo* by stating, “It looks a lot like my *Facebook*, actually,” noting the color of the logo and the layout and design of the site. Harry furthers this comparison by stating,

Edmodo is set up most like *Facebook*. I think they were trying to do that, to set it up so that it looked like *Facebook* so it would be a familiar format to students and be something that they would be interested in using because it reminded them subliminally of this thing that they use outside of school.

Lastly, Ron makes comments similar to Ginny and Harry, noting the layout, color, and tools. The implications of this similarity are that using this site does not require learning new skills since the functionality is similar to other social network sites, specifically *Facebook*.

Although Luna and Ron both mention media multi-tasking, Ginny and Harry feel that *Edmodo* provides the ability to pace and focus more clearly on their writing. Luna also discusses this. She notes, “Online, there’s more time within [*Edmodo*] versus actual personal Socratic Seminar when you’re back and forth talking, so it’s like hard to quickly go back like that because it’s just quick.” Furthermore, both Harry and Ron feel that responding to assignments in *Edmodo* offers the ability to pace individual participation.

Beyond pacing, various curricular components are reinforced within *Edmodo*. Both Luna and Ron discuss how reading strategies are strengthened by using *Edmodo*. In

addition to reading, three of four participants feel that class discussions, similar to Socratic Seminars that occur in class, are accomplished within *Edmodo*. Ginny and Harry mention being interested in the sharing of opinions with peers and liken the exchange in *Edmodo* to class discussion. Debating is a skill that helps prepare students for the argumentation component of the AP Language class. Additionally, Mrs. Granger uses released items from previous AP exams. Harry discussed how *Edmodo* provided him with practice dissecting the prompts provided. He also discussed being able to formulate arguments for discussion in *Edmodo* helped him learn to quickly establish an opinion and support it in a reasonable manner. However, it is important to note that these are the skills deemed important by Mrs. Granger in achieving the curricular goals for her specific course. Therefore, teachers must understand the academic goals for using *Edmodo* and design activities that specifically strengthen those skills within *Edmodo*.

Since students consider *Edmodo* an academic environment, all four participants discussed how students take more care when using conventions. Since all four made similar comments, I followed up with Mrs. Granger to ensure that this was not a directive she provided to students. In fact, she made no mention of appropriate use of conventions when completing assignments in *Edmodo*, but did say that she assumes that because participation in *Edmodo* was tied to a grade, students may have made this assumption on their own. Ginny feels that *Edmodo* definitely improved her writing while Harry felt he used better diction. Ron added that he has not seen many errors in conventions in *Edmodo*. Since the environment is academic, and the site is used for school, all four participants note that students use better conventions overall than they do on other social network sites. An academic social network site has a distinction from other social

network sites in that, in general, students do not use other SNSs for school, making *Edmodo*'s environment somewhat unique beyond its similar functionality.

Environment. Both Ginny and Harry make detailed comments regarding *Edmodo* being best suited for AP students. She notes that “the way we respond to one another is very intellectual,” and this equates to her perception that AP is a more intellectual class; therefore, *Edmodo* is better suited for AP students because “*Edmodo* is primarily, I think, for discussion and I don’t think the regular classes have done it.” Harry feels that *Edmodo* is better for use with honors and AP Students because they care more about grades. “The one core class I am in is the one that has the other *Edmodo* account. No, it’s not going to be used as frequently as AP students because they’re not going to care as much.” Because the students access *Edmodo* because they receive a grade for their participation in the activity, the teacher’s role in creating the environment is crucial in establishing the expectation for interactions within the environment. Three of the four participants said they would choose a teacher who uses *Edmodo* as a component of class. Only Ron, who describes himself as a lazy student, said he considers it more work and would not choose the teacher who uses *Edmodo*. This aligns with Harry and Ginny’s assumptions about motivated students and their participation within *Edmodo*'s academic environment.

Mrs. Granger organizes the students into groups labeled by color. Luna enjoyed working within these groups because she is not connected to some of her peers in other social network sites. Harry felt that group work in *Edmodo* provides additional opportunity to work with students outside of those who he normally opts to work with during class. Ron feels that group work in *Edmodo* is simply a continuation of class

work. Furthermore, all four participants comment that they feel as though they know their peers better from their participation in *Edmodo*. Ron says, “I feel like more people, like they’re actually communicating outside of school, so it’s almost like acquaintances are becoming friends.” Beyond knowing peers better, Luna and Ginny both discussed a benefit of using *Edmodo* is not having to worry about immediate peer reactions to their work or opinions shared in *Edmodo*. They perceive that *Edmodo* is free from immediate and noticeable judgment by their peers. However, Luna recalled a story where she felt a classmate took a disagreement personally, and Harry admits to being judgmental of his peers’ writing abilities. He says, “I’ll read what someone wrote and I’ll be like, ‘Wow, you sound really dumb right there.’” However, that is his personal thought that he does not share with peers. In contrast, in the classroom, Harry might reveal this judgment from his body language.

A surprising benefit of *Edmodo* is that the online environment is free from social cues. Unlike in a Socratic Seminar in the classroom, *Edmodo*’s virtual environment does not provide students with social cues to use when gathering feelings about their peers participation in an activity. Harry notes,

In person, it sounds less mean because you’re actually having a discussion. If I had attacked someone’s position on *Edmodo*, you can’t see anyone’s body language. You can’t see that I’m partially joking around with them or whatever. In the absence of social cues, Harry conveys that the amount of time before a classmate responds impacts student perceptions about what is being said in the discussion or the point being argued. Both Harry and Ron feel the lack of social cues impact the messages that they are sharing with their classmates.

In contrast, *Edmodo*'s tone seems to be implied in its purpose since students complete work for a grade for school. Luna states, "Because it's school-related, [it's] scholarly." Ginny compares this to *Facebook*, noting that "I definitely notice that people are much different on how they act on *Edmodo*." Ron calls the environment informed, noting that he's "usually a little more professional on *Edmodo*." This indicates that students share different personas in *Edmodo* than they do during class. Ron feels his truer persona is shared during class; whereas, Luna, who describes herself as someone who is on the computer frequently, and is shy and quiet, states, "I'm more likely to probably participate in *Edmodo*" in comparison to class. *Edmodo* gives her the opportunity to contemplate and formulate her statements. Ginny also says she acts differently online than in class. Ron notes that he tries to interact similarly in class and *Edmodo*, just a bit more professional in *Edmodo* because of the academic nature of the environment.

Limitations

This study is limited to one Arizona high school from a unified k-12 school district. From this school, two junior AP Language and Composition classes produced four students highly connected to the internet for a multiple case study model. The district is predominantly white, upper middle class, and is still considered a hyper growth district in comparison to other districts in the area that are seeing declining enrollment. This is a limitation because the group, in general, is quite homogeneous, and will therefore only yield one glimpse of the cases studied.

Additionally, an assumption made by this study is that students use *Facebook*. However, recent trends in social media usage by teenagers indicate that other social network sites are gaining popularity of teen's social usage of *Facebook* and that teens are

no longer using *Facebook* with the frequency that they were at the inception of this study. This presents another limitation in that the results of this study may only be generalizable for a short period of time as students move on to use other networks during a time when *Edmodo*'s use in classrooms is on the increase (Dunlap & Lowenthal, 2009).

Suggestions for Further Study

In following many educators on *Twitter* in the field of educational technology, they have suggested that teens have moved their socializing beyond *Facebook* to other networks. The results of this study indicate that the four participants are using other social network sites; however, further study into teenagers' primary use of social networks might provide robust detail regarding how teens interact in other networks beyond *Facebook*. This begs the question: Is *Facebook* still meaningful to teenagers?

Furthermore, three of the four participants in this study discussed accessing *Edmodo* from their cell phones. This suggests that the use of apps in education is an area ripe with possibilities for further research. How do students use educational apps via their cell phones in and out of class, specifically in an age where no tolerance cell phone policies, such as the one in effect in the school where the study participants attend, are becoming more rare? Extensive research has been conducted into BYOD (Bring Your Own Device) models, yet the understanding of how students use academic social networking apps while using their own devices in schools is an area for further research.

Lastly, I am extremely interested that the participants in this study feel that *Edmodo* is best suited for honors and AP students. An assumption might be that because they enjoy *Edmodo* and they are AP students, they personalize their feelings about the website. Although this is their perception, it would be worth studying the frequency of

participation comparing AP and core students' engagement in the use of *Edmodo*. Such a study might reveal data in contradiction to the perceptions of the participants in this study.

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APPENDIX A
INSTITUTIONAL REVIEW BOARD APPROVAL

To: James Blasingame
LL

From: Mark Roosa, Chair
Soc Beh IRB

Date: 06/04/2013

Committee Action: **Amendment to Approved Protocol**

Approval Date: 06/04/2013

Review Type: Expedited F7

IRB Protocol #: 1303008921

Study Title: Student Interactions in Edmodo Compared to Educational Uses of Facebook

Expiration Date: 03/18/2014

The amendment to the above-referenced protocol has been APPROVED following Expedited Review by the Institutional Review Board. This approval does not replace any departmental or other approvals that may be required. It is the Principal Investigator's responsibility to obtain review and continued approval of ongoing research before the expiration noted above. Please allow sufficient time for reapproval. Research activity of any sort may not continue beyond the expiration date without committee approval. Failure to receive approval for continuation before the expiration date will result in the automatic suspension of the approval of this protocol on the expiration date. Information collected following suspension is unapproved research and cannot be reported or published as research data. If you do not wish continued approval, please notify the Committee of the study termination.

This approval by the Soc Beh IRB does not replace or supersede any departmental or oversight committee review that may be required by institutional policy.

Adverse Reactions: If any untoward incidents or severe reactions should develop as a result of this study, you are required to notify the Soc Beh IRB immediately. If necessary a member of the IRB will be assigned to look into the matter. If the problem is serious, approval may be withdrawn pending IRB review.

Amendments: If you wish to change any aspect of this study, such as the procedures, the consent forms, or the investigators, please communicate your requested changes to the Soc Beh IRB. The new procedure is not to be initiated until the IRB approval has been given.

Please retain a copy of this letter with your approved protocol.

APPENDIX B
INTERNET CONNECTEDNESS INDEX SURVEY

Internet Connectedness Index Survey - Adapted from Jung (2008)

Do not use your name. **Enter your student ID#** here:

Demographic Information

1. What is your age?
2. What is your gender?
3. What is your grade level in school?

Technology Usage Questions

1. Do you use the internet on a daily basis?
2. How many years have you used the internet for work or play?
3. How many different websites do you visit each time you use the internet?
4. How many activities do you consider work each time you access the internet?
5. How many activities do you consider play each time you access the internet?
6. Considering each of the following as a separate task: email, chatting, blogging, updating statuses, tweeting, word processing, research, etc., how many tasks do you complete each time you use the internet?
7. How long could you go without the internet before you feel it would impact your life?
8. From how many different devices do you access the internet?

Scope of Use

1. How many of the following activities have you participated in while using the internet:

- Chatting
- Instant messaging
- E-mail
- Gaming/playing games
- Listening to music
- Participating in list-serves
- Watching TV
- Watching movies
- Maintaining a website
- Blogging

Skyping
Surfing the web
Watching web-casts
Listening to pod casts
Taking an online class

2. For those activities listed above that you have participated in, how important is each activity to you? (from 1—not very important to 10—couldn't live without it)
3. How many hours per week do you use the internet for work or play?
4. If you woke up tomorrow and the internet was gone, how much would it affect your life? (1—not much and your life would proceed as normal to 10—my life would be extremely impacted)

APPENDIX C
INFORMATION LETTER FOR PARENT CONSENT

Title of Study: **Student Interactions in *Edmodo* versus *Facebook***

Date

Dear Parent of Prospective Study Participant:

I am a graduate student under the direction of Professor James Blasingame in the College of Education at Arizona State University. I am conducting a research study to examine how students interact in *Edmodo* compared to how they interact in *Facebook* for educational purposes.

I am inviting your student's participation, which will involve completing an on-line survey about your use of the internet. This survey will be completed at home. If your student does not wish to participate, he or she should not complete the survey. Students who do wish to participate will only use their student ID # on the survey.

At minimum, I will observe students interaction while completing school assignments using *Edmodo* and describe these interactions while keeping students' identities anonymous. These assignments will be completed at home for class regardless of participation in the study. At most, if chosen, your student will be asked to be interviewed about his or her use of *Edmodo*. Your student has the right not to answer any questions, and to stop the interview at any time. Interviews will take no more than two hours and will be conducted after the completion of AP testing (late May).

Your student's participation in this study is voluntary. If your student chooses not to participate or to withdraw from the study at any time, there will be no penalty. Although I am contacting you via your English class, your participation or lack of participation in no way impacts your grade in this course, nor on the assignment that you will complete as part of the observation for this study. Because your student is likely not eighteen years of age, you are being asked to sign a form granting permission for your student to participate in this study.

Although there is no personal benefit for your student to participate in this study, please know that your student's participation and the data collected from this study will be used to help teachers make choices about which type of digital activities and environments are most appealing to students today. Your student's identity will be protected and there are no foreseeable risks or discomforts for your student to participate.

Any data collected about your student will remain confidential. Your child's name will never be used during the reporting of the results of the study. The results of this study may be reported in written form, discussed in presentations or publications, but your

child's name will never be used in association with the data from this study. Pseudonyms will be used for those chosen to grant interviews about their interactions in *Edmodo*.

I will be collecting data using a digital audio recorder during the interview process. I would like to audiotape this interview in order to accurately transcribe your student's responses to the questions. The interview will not be recorded without your student's permission. Please let me know if you or your student do not want the interview to be taped; your student can change his or her mind after the interview starts. He or she should just let me know. The digital files of the interview will be stored in a cloud storage program (Dropbox) that is password protected for the duration of the study. At the culmination of this study, the files will be deleted from the storage program.

If you have any questions concerning the research study, please contact Dr. James Blasingame at (480)965-6074 or by email at James.Blasingame@asu.edu. If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

Please let me know if you wish to allow your student to be part of the study by signing the attached form and allowing your student to complete the initial survey via the link provided to you in class. Remember, you are able to withdraw from this study at any time.

Sincerely,

Elizabeth Curran-Sejkora

By signing below, you are giving consent for your child _____ to
Child's name
participate in the above study.

Signature Printed Name Date

If you have any questions about you or your child's rights as a subject/participant in this research, or if you feel you or your child have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the Office of Research Integrity and Assurance, at (480) 965-6788.

APPENDIX D
STUDENT ASSENT FORM

Study name: **Student Interactions in *Edmodo* versus *Facebook***

My name is Elizabeth Curran-Sejkora. I am a student at Arizona State University.

I am asking you to take part in a research study because I am trying to learn more about student interactions in *Edmodo*. I want to learn about what you do when you are completing assignments for school using *Edmodo*. Your parent(s) have given you permission to participate in this study.

If you agree, you will be asked to fill out a survey on-line. You will be asked how often you use the internet. You will also be asked about how frequently you use the computer. Answering these questions will take about 15 minutes. You do not have to put your name on the survey, but you will put your student ID# so that I am able to invite you to participate in an interview about your use of *Edmodo*.

The interview will be conducted during school after the AP exams are completed. The interview portion will take no more than two hours of your time. I will ask you questions about your interactions in *Edmodo*. You do not have to answer any questions that make you uncomfortable. You may choose to end the interview at any time. Participation in this study does not impact your grade in any way.

You do not have to be in this study. Even if you start the study, you can stop later if you want. You may ask questions about the study at any time. You will not receive any benefit from participation in the study. Your participation in the study does not impact your grade in this class.

If you decide to be in the study I will not tell anyone else how you respond or act as part of the study. Even if your parents or teachers ask, I will not tell them about what you say or do in the study. No one will know about your use of the internet, your answers to the questions, or your opinions about *Edmodo*.

Signing here means that you have read this form that you are willing to be in this study.

Signature of subject _____

Subject's printed name _____

Signature of investigator _____

Date _____