Socialization of Cyber School Students[i]

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Abstract

This quantitative research study was aimed at better understanding teacher attitudes and beliefs about the socialization of brick and mortar and cyber school students. The independent variables within this quantitative research study are traditional brick and mortar teachers (BM) and cyber school teachers (VIR). The dependent variables studied are the attitudes (ATT) and beliefs (BEL) of teachers on the socialization of cyber school students. Data collection took place through an online survey that was distributed via social media on Facebook. The results of this study yielded three major outcomes: teachers believe that social interaction is an important element of both learning environments, teachers believe that there is a need to promote the socialization of cyber school students, and brick and mortar teachers are more concerned with student socialization than cyber school teachers. In relationship to the theoretical framework of Vygotsky's Social Learning Theory, the results of the present study show support for the idea that peer social interaction is closely tied with learning, given the importance of this element as indicated by teachers. Additionally, given the uncertainties about the effectiveness of social learning in the virtual classroom, this study confirms that teachers of both types indicate the need to promote social learning and interaction in the virtual classroom.

Keywords: Cyber School, Online Learning, Socialization, Social Learning Theory, Vygotsky.

Introduction

Socialization remains a primary element of human development since the earliest civilizations. Humans are intrinsically drawn to one another for shared resources, companionship, and ultimately survival. Now in the age of technology, the ways in which we interact, socialize, and communicate have dramatically transformed from the proximal communities of the past (Chai & Fan, 2016; Deaton, 2015). Educators today are faced with the new and unique challenge of instructing students across varied methods of communication, many of which stretch the physical boundaries of the brick and mortar classroom. Rooted in Vygotsky's Social Learning Theory and Social Development Theory, it is suggested that children learn and retain information better in a social environment and through shared learning experiences (Bandura, 1977; Vygotsky, 1978).

The recent rise of cyber schooling presents new challenges in educating students and ensuring adequate opportunities for socialization in the online classroom. Cyber schools have been part of the school choice movement since the early 2000s in most states across the United States (National Education Policy Center, 2016; Pazhouh, Lake, & Miller, 2015). Many state-funded cyber charter schools report lower than average test scores and poor student academic performance when compared with traditional brick and mortar classrooms (Barbour, Huerta, & Miron, 2018; Jack et al., 2013). Despite poor academic performance and low state testing scores, virtual school enrollment continues to grow (Sludden & Schott, 2013). While some believe that cyber schools offer a unique opportunity for home-based education and can provide opportunity to students who do not identify themselves as a good fit with their local school district, opponents of cyber schools argue for higher accountability for low performing cyber schools (Barbour, Huerta, & Miron, 2018; Schafft et al., 2014). Few studies exist to determine if socialization is a factor in the academic performance of cyber schools.

Vygotsky's Social Learning Theory and Social Development Theory suggests that children learn more effectively in a social environment where they are participating in shared learning experiences (Bandura, 1977; Bozkurt, 2017; Gilles, 2014; Gunduz & Hursen, 2015; Slavin, 2013; Vygotsky, 1978). With a lack of proximal peer to peer interactions and fewer opportunities for genuine collaboration in the classroom, the effects of diminished social experiences for cyber school students is cause for concern in considering its potential impact on student learning.

Existing literature on socialization in K-12 online learning focuses on differences in perceived social presence (Cheng & Szeto, 2014; Bowers & Kumar, 2015), forming relationships in the virtual environment (Zhou, et al., 2016), frequency and duration of teacher-peer interactions and their impact on learning outcomes (Agudo-Peregrina et al., 2014; Joksimovića et al., 2015, Hawkins et al., 2013), student preference and satisfaction in the online environment (Lee, Young Yoon, & Hyun Lee, 2013; Kauffman, Heather., 2015), and overall online learning effectiveness (Nguyen, 2015; Moradi, Moein, et al., 2018). Furthermore, a significant amount of research in this area studies higher education, rather than the K-12 environment (Buzwell, S., Farrugia, M., & Williams, J, 2015; Ilgaz, H., & Gülbahar, Y., 2015; Jaggars, Shanna Smith, 2014; Kirkwood, Adrian and Price, Linda, 2014). Similar research has been conducted in looking at homeschool students and socialization, which largely reports that homeschooling does not have a negative impact on social skills (Koehler, et al., 2010; McKinley et al., 2007; Medlin, 1994, 2006; Ray, 2010). Additionally, Social Presence Theory is a popular theory in the current literature, which

looks at how socialization occurs through virtual spaces and how meaning is created through internet communications (Picciano, 2002; Tu, 2000; Whiteside 2015). The research of social learning theory may be applicable to online educators by identifying ways to improve virtual socialization and peer communication.

A gap in the literature exists in determining teacher perceptions of socialization in cyber schooling and its relationship to academic performance. Methodologically, no studies are present that comparatively represent the opinions of both cyber teachers as well as brick and mortar teachers. This study intends to remedy these deficiencies by comparing the perceptions of both cyber and traditional school teachers in relation to student socialization in the brick and mortar and virtual environment. Multiple audiences benefit from this study, including current and potential K-12 online learners as well as cyber school district leaders and teachers. In an attempt to make better informed decisions as to school choice, current and potential K-12 online learners benefit through a more well-defined understanding of how teachers perceive the social costs of online schooling and how these may impact student learning. Cyber school districts benefit through a wider understanding of how their own school beliefs fit into a larger context of socialization in online learning, in hopes that they may alter school policies to better fit the social needs of students. Using a quantitative survey method, this study compares attitudes and beliefs of cyber school and traditional classroom teachers on the significance of student socialization and its relation to learning outcomes.

Theoretical Framework

Vygotsky's Social Learning Theory sets a theoretical foundation to further examine impact of cyber schooling and its correlation to the social development and learning of children. The work of psychologists Lev Vygotsky and Albert Bandura have laid the framework for social learning theory. Vygotsky surmises that children construct learning through social interactions with peers. Known as constructivism, he argues that students learn best in a social setting, and that furthermore these interactions play a critical role in the cognitive development of the child (Bandura, 1977). Vygotsky (1978) explains that every part of the child's development occurs in two parts, first the social level (between people), and then later the individual level (within the child). Similarly, Bandura (1977) believes that children learn through observation and imitation, and therefore the social presence of others is key in a child's learning and development. This research provides the groundwork for further research on the impact of socialization on child development and learning.

Constructivism continues to be a major trend in educational practice today and is predicted to continue to gain importance (Gunduz & Hursen, 2015). In looking at educational philosophies of today's educators, the use of social interaction theory and constructivism is prevalent through all levels of education. Krahenbuhl (2016) agrees that twenty-first century educators are increasingly compelled to buy-in to constructivism and utilize interactive practices in the classroom, further confirming how these learning theories are relevant today. Teachers are regularly utilizing constructivism and social learning in traditional brick and mortar classrooms across the country and are demonstrating research-supported results that indicate that socialization is an important factor in student learning.

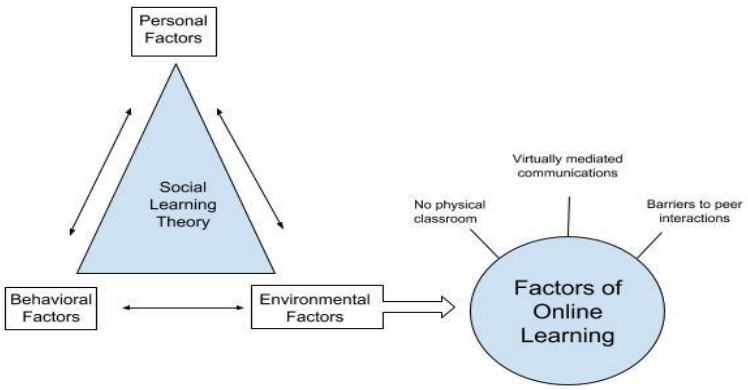

Figure 1 Social Learning Theory (Vygotsky, 1978)

In a recent study of the effectiveness of learning through social constructivist perspectives, Bozkurt concluded that an interactive approach to learning math supports improvements in individual student cognition and learning (2017). Students who worked interactively with one another scored higher on assessments than students who worked individually, demonstrating the power of interaction in learning (Bozkurt, 2017). Given the continued research and support of teachers, social learning and constructivism are widely accepted as successful classroom practices. These studies indicate that not only is this style of learning being regularly utilized, but it also is as effective as has been presented in previous literature.

Gilles suggests that cooperative learning is another accepted form of social learning theory (2014). Cooperative learning takes place when students interact by working together to complete specific tasks and achieve group goals. In a comprehensive literature review of the effectiveness of cooperative learning, Gilles asserts that cooperative learning may support academic success in reading, writing, science, math, and overall higher-order thinking skills. Participation in cooperative learning is shown to produce academic and social growth when compared to the outcomes of individual learning. He further suggests that schools have been largely structured to encourage socialization and learning opportunities, given the confidence in the power of cooperative learning (Gilles, 2014).

Slavin found similar results on cooperative learning and teacher professional development on the use of cooperative learning in the classroom (2013). In a systematic review of math and reading program research, Slavin found that patterns emerged across hundreds of studies indicating a potential relationship between cooperative learning and student outcomes. Teachers who were trained to utilize cooperative learning demonstrated stronger academic success for their students as compared to teachers who received trainings in computer-aided instructional methods (Slavin, 2013). In a later study on the same topic, Slavin suggests that cooperative learning and its link to student achievement is generally viewed through one of four perspectives: motivational, social

cohesion, cognitive, or developmental (2015). Each of these factors is thought to contribute to the learning process during collaboration. Although there is significant empirical evidence to support the success of collaborative learning, constructivism, and social learning theory, there is little evidence to support that the sole act of interaction can produce higher achievement in students, suggesting that that while socialization plays a key role in student learning, there must be other contributing factors that cannot be dismissed (Slavin, 2015).

Additionally, Deaton argues that given the increase of virtual communications through the use of social media and digital technology, the way in which we communicate and interact has been fundamentally altered within the past decade (2015). This alteration in communication and increase in technology has inevitably changed the ways in which learning takes place, suggesting that social learning theory may not be relevant to the virtual classroom environment (Deaton, 2015). Zhou et al. suggest that one example of technology being used to foster strong relationships is the online tool of instant messaging (2016). This form of online interaction is thought to be of high quality, given its ability to facilitate problem solving and foster the sharing of values and relationships, suggesting that meaningful social interaction may be able to occur virtually (Zhou, et al., 2016).

This combined research on the role of socialization on learning in the traditional brick and mortar classroom provides support for the theory that socialization is an important factor in the learning process as it can promote higher academic success for students. Yet, much of this research cannot be as easily applied to the virtual classroom given the major differences in the two settings. In a brick and mortar classroom, students have regular access to their peers, while in an online classroom setting, those interactions can only take place virtually, providing impediments on the level to which students can collaborate, interact, and communicate.

Given the increase of virtual communications through the use of social media and digital technology, the way in which we communicate and interact has been fundamentally altered within the past decade. This alteration in communication and increase in technology has inevitably changed the ways in which learning takes place (Deaton, 2015). With the expansion of the virtual classroom environment, more recent research has focused on how social learning translates online. In a traditional classroom, students have numerous and varied opportunities for collaboration and interaction, both through formal instruction as well as proximal interactions. In the virtual classroom environment, these interactions are naturally lessened given that students are not in the same space while they are learning, rather most online learning takes place in the students' homes. Therefore, social presence and peer interactions are experienced differently virtually than they would be in a traditional brick and mortar classroom.

Furthermore, the continued relevance of social learning theory, constructivism, and cooperative learning can be seen recent literature and research (Gilles 2014; Gunduz & Hursen, 2015; Krahenbuhl, 2016; Salvin, 2015). The theories of Vygotsky and Bandura suggest that without the opportunity for interaction and collaboration, children may not have the opportunity to develop adequate social skills or participate in fundamental learning which is fundamental to development (Bandura, 1977; Vygotsky, 1978). Yet, contradictory research suggests that meaningful communication and interaction can be achieved in the online setting, demonstrating how further

research is needed to help better understand this complicated setting (Bowers & Kumar, 2015; Deaton, 2015, Zhou et al,. 2016).

Conceptual Framework

The conceptual framework of this study is built upon the assumptions of Vygotsky's Social Learning Theory that socialization and peer interactions have a direct link to student learning outcomes. This study intends to investigate the differences between virtual teachers and traditional teachers' attitudes and beliefs about the socialization of cyber school students. The mediating factor of teacher environment (virtual teacher vs. traditional teachers) was compared to see how they differ in attitudes and beliefs. The socialization of virtual school students is the factor being investigated.

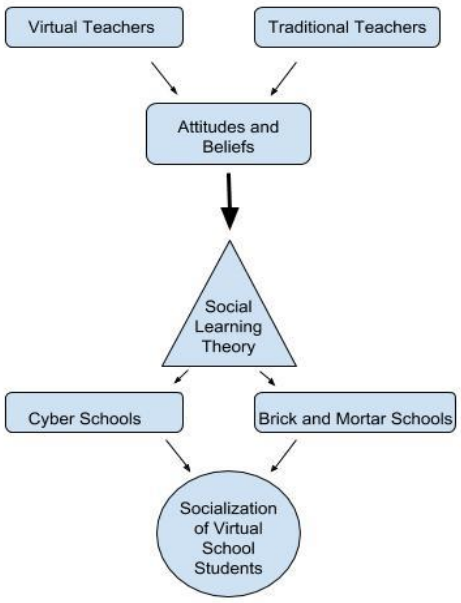

Figure 2: conceptual Framework

Purpose Statement

The purpose of this study is to test Vygotsky's Social Learning Theory that relates the socialization of cyber schooled students to learning experiences, by comparing the attitudes and beliefs of brick and mortar and cyber school teachers on the importance of socialization in both brick and mortar and cyber school classrooms. The independent variables are type of schooling, brick and mortar or virtual. The dependent variables are defined as attitudes and beliefs of brick and mortar and cyber school teachers on social learning experiences of both virtual and brick and mortar school students.

Research Questions

What are the differences in attitudes and beliefs about student socialization between virtual and traditional teachers of brick and mortar and cyber school students in Pennsylvania?

Sub Problems

1. What are the attitudes of traditional teachers about socialization of brick and mortar school students?
2. What are the attitudes of traditional teachers about socialization of cyber school students?
3. What are the attitudes of cyber school teachers about socialization of brick and mortar school students?
4. What are the attitudes of cyber school teachers about socialization of cyber school students?
5. What are the beliefs of traditional teachers about socialization of brick and mortar school students?
6. What are the beliefs of traditional teachers about socialization of cyber school students?
7. What are the beliefs of cyber school teachers about socialization of brick and mortar school students?
8. What are the beliefs of cyber school teachers about socialization of cyber school students?
9. What are the differences in attitudes between virtual teachers and traditional teachers on the socialization of cyber school students?
10. What are the differences in attitudes between virtual teachers and traditional teachers on the socialization of brick and mortar students?
11. What are the differences in beliefs between virtual teachers and traditional teachers on the socialization of cyber school students?
12. What are the differences in beliefs between virtual teachers and traditional teachers on the socialization of brick and mortar students?

Hypothesis

Hypothesis 1:

Null Hypothesis 1: There are no differences in attitudes of traditional and cyber school teachers about socialization of cyber school students.
Alternative Hypothesis 1: There are differences in attitudes of traditional and cyber school teachers about socialization of cyber school students.
Directional Hypothesis 1: Traditional teachers are more likely to have negative attitudes about socialization of cyber school students.

Hypothesis 2:

Null Hypothesis 2: There are no differences in beliefs of traditional and cyber school teachers about socialization of cyber school students.
Alternative Hypothesis 2: There are differences in beliefs of traditional and cyber school teachers about socialization of cyber school students.
Directional Hypothesis 2: Traditional teachers are more likely to have negative beliefs about socialization of cyber school students.

Hypothesis 3:

Null Hypothesis 3: There are no differences in attitudes of traditional and cyber school teachers about socialization of brick and mortar students.
Alternative Hypothesis 3: There are differences in attitudes of traditional and cyber school teachers about socialization of brick and mortar students.
Directional Hypothesis 3: Traditional teachers are more likely to have negative attitudes about socialization of brick and mortar students.

Hypothesis 4:

Null Hypothesis 4: There are no differences in beliefs of traditional and cyber school teachers about socialization of brick and mortar students.
Alternative Hypothesis 3: There are differences in beliefs of traditional and cyber school teachers about socialization of brick and mortar students.
Directional Hypothesis 3: Traditional teachers are more likely to have negative beliefs about socialization of brick and mortar students.

Definition of Terms

1. Cyber School - Provides majority of instruction to students through the Internet or by some other electronic means. Students enrolled in cyber schools complete most school work at home through a computer, rather than attending in a school building (Education Law Center, 2013). In this study, cyber schooling is defined as learning that takes place in a virtual classroom setting rather than a brick and mortar school.
2. Traditional Teacher - A Pennsylvania certified instructor who teaches in a brick and mortar classroom either full or part-time.
3. Virtual Teacher - A Pennsylvania certified instructor who teaches in a cyber school, either full or part-time, using the internet as the primary communication and instructional tool
4. Socialization - the process beginning during childhood by which individuals acquire the values, habits, and attitudes of a society through social interactions with others (Merriam-Webster). In this study, socialization can be defined as meaningful interactions among individuals, which can occur in-person or can be mediated through technology.
5. Student learning outcomes- Defined as teacher perception of student academic achievement as measured by observable learning, student grades, and overall academic performance.

6. Online learning - A form of distance learning in which students learn primarily through computer-mediated experiences (Nguyen, 2015).
7. Synchronous learning - Learning that takes place in live time, as opposed to asynchronous learning in which students are working independently (Szeto & Cheng, 2014). In the virtual classroom environment, synchronous learning can take place through live sessions, video calling, online collaborative documents, and instant messaging.
8. Attitudes - A mental position with regard to a fact or state; a feeling or emotion toward a fact or state (Merriam-Webster).
9. Beliefs - Something that is accepted, considered to be true, or held as an opinion; something believed (Merriam-Webster).

Delimitations

This study is delimited to Pennsylvania certified K-12 teachers who hold a valid Instructional I or II teaching certificate.
This study is delimited to teachers who have been working in the profession for at least one year.
This study is delimited to teachers who are currently working in Pennsylvania.

Limitations

Limitations to this study are present, including that participation is volunteer based and therefore participation may be limited. Delimitations of the study also narrow the eligibility of participants, which may result in a smaller sample than anticipated. Given that sampling is conducted in a limited demographic (Pennsylvania), it therefore may not be generalized or representative of the larger population. Results of this study could only be generalized to teachers who (a) hold valid Pennsylvania teaching certificates, (b) teach a K-12 subject in Pennsylvania, and (c) have one or more years teaching experience. Duration of study allows for two weeks for data collection, which may potentially limit the scope of the findings. Additionally, the researcher-created survey instrument may need to be further clarified for validity and reliability.

Assumptions

It can be assumed that participants did answer truthfully, the sample is representative of the population, the survey tool is valid and reliable, and participants have a sincere interest in completing the study without other motives. To ensure truthful participation, the records of this study will be kept private. Information used in any written or presented report will not make it possible to identify the participants. Only the principle investigator has access to the research records, which is stored on a password protected secure server. Prior to participating in the study, potential participants needed to agree to the informed consent form, as well as acknowledge that they are meet all eligibility requirements and have no ulterior motives in completing the study. In order to ensure validity and reliability of the survey instrument, it was modeled after previously created survey tools with proven validity and reliability.

Significance

As the climate of education continues to change and adapt to educational technology, it is critical to continue to evaluate and analyze how technology is being used to service students and what the impact is on student learning. Future research should focus on developing accurate measurements for student interactions when utilizing instructional technologies as well as continuing to monitor how changing technologies impact student opportunities for collaboration and related learning outcomes. Additionally, long-term longitudinal studies on cyber schooled children and any possible lasting impacts due to lack of socialization opportunities would be beneficial to closing gaps in the literature. Few studies exist using Social Learning Theory as a framework when studying learning outcomes in cyber school students.

Limitations of the literature on this topic include difficulty in accurately measuring socialization, inconsistencies between cyber schools, and lack of long-term longitudinal studies on lasting impacts. The existing body of research focuses mainly on identifying the efficiency of online learning by comparing student learning outcomes, but does not adequately address how meaningful virtual interactions can be a critical component of this. Another important limitation is that comparatively few cyber schools have been studied in relation to how many are currently operating. This limits the results of the literature because those who have been studied are not necessarily representative of all cyber schools, which suggests that some cyber schools may be out performing others. This study is intended to address these gaps in the literature by focusing on the topic of teacher perspectives of socialization in the virtual environment, therefore adding to this growing body of literature to help clarify how Social Learning Theory is applicable to cyber school students.

The analysis of this future study is valuable for parents and students who are attending or considering attending a cyber school to help them make an informed decision as to how it can impact their education. This information is also valuable for cyber schools, given that they can change common practices to encourage more meaningful student-student interactions, which may promote more learning and higher academic achievement. Additionally, this study can be useful for policy makers to make informed decisions as to how to alter and encourage legislation that benefits students attending cyber schools, as well as their local sending schools.

Literature Review

In exploring the effectiveness of online learning, socialization of homeschooled students, and social presence and online learning, three key patterns in the literature emerge. First, that despite numerous and varied research studies, it is inconclusive how social learning theory applies to the online learning environment and it cannot be stated whether or not socialization is a factor in the underperformance of virtual schools (Jack et al., 2013; NEPC, 2016; Szeto & Cheng, 2016; Zhao, Sullivan, & Mellenius, 2014). Second, that despite the low performance shown in the home learning environment of virtual schools, homeschool research demonstrates that students can thrive academically and socially in the home learning environment (Barbour, Huerta, & Miron, 2018; Francis and Keith, 2004; Ray, 2010; Reavis and Zakrinski, 2005). Lastly, that more research is needed to clarify how social interaction and collaboration, including those in the virtual classroom, can be both effectively measured and implemented within the classroom (Piccano,

2003; Oyrzun, 2016; Whiteside 2015). Overall, this literature shows that there is a need to clarify how social learning and socialization translate into the virtual space and if the differences in communication and methods of interaction have an impact on the academic achievement of online students. Ultimately, learning more about how socialization takes place virtually can potentially enable virtual instructors and schools to implement best practices to increase student success.

Research Design

The purpose of this study is to compare the difference in attitudes and beliefs of traditional and cyber school teachers through a quantitative study. An online survey method is the preferred approach for this study because it provides for flexibility in administering the survey instrument across the population within the specified region. This survey is cross-sectional in nature with all data collected at one point in time. The independent variables within this quantitative research study are traditional brick and mortar teachers (BM) and cyber school teachers (VIR). The dependent variables studied are the attitudes (ATT) and beliefs (BEL) of teachers on the socialization of cyber school students. Data collection took place through an online survey that was distributed via social media on Facebook.

Sample

The population to be studied in this survey is teachers in Pennsylvania, including both traditional classroom teachers and cyber school teachers. The US Bureau of Labor Statistics estimates the number of elementary, middle, and secondary school teachers in Pennsylvania at 122,430.

A convenience sample was utilized wherein participants were chosen based on availability and convenience. The population was be selected through voluntary participation using social media (Facebook) as the recruitment method. The sampling design for this population was single stage. The researcher posted a status update sharing the recruitment flyer and survey link twice throughout the two week data collection window. Additionally, the researcher shared the recruitment post and survey link on the PA Teachers Unite Facebook group, a group of 180 members for teachers in Pennsylvania. The recruitment post can be found in Appendix B and the Informed Consent is can be found in Appendix C.

Instrumentation

Two instruments used for this study the Socialization Belief and Attitude Instrument and a demographic instrument. The Socialization Belief and Attitude Instrument is a modified instrument of the Teachers' Attitudes, Beliefs, and Self Efficacy about Multicultural Education (Appendix D). Exploratory Factor Analysis was used to create this instrument. Content validity was established for 13 items for belief scale and 19 items for the attitude scale through approval of five experts. Construct validity of the analysis was confirmed through analysis of the data of 490 teachers. Exploratory Factor Analysis was completed to test the accuracy and reliability of the model structure have led to Confirmatory Factor Analysis. Reliability was verified using Cronbach's alpha values and was determined to be .737 for belief scale, .654 for attitude scale and .786 for self-efficacy scale (Yildirim & Tezci, 2016).

This survey instrument was further modified to reflect teachers' attitudes and beliefs regarding socialization of cyber school students. Elements of multicultural education were removed and replaced with elements of socialization for cyber school students. Content validity of this instrument has been strengthened through pilot testing. Three voluntary participants meeting the participation requirements of the study have evaluated the instrument by performing an initial evaluation of question consistency, as well as improving format and instructions. The comments and feedback of the three pilot testers have been used to alter the instrument. To ensure reliability of the modified survey instrument, professional review has been completed by Marywood University faculty Dr. Joseph Polizzi. Professional Review documentation was provided to the Institutional Review Board for Marywood University.

Likert scale scored from 1-5 was used to measure items on the instrument from a continuous 5 point scale of Strongly Disagree, Disagree, Neutral, Agree, and Strongly Agree. For attitude, the minimum score is 10 and maximum score is 50. For beliefs, the minimum score is 10 and the maximum score is 50. The beliefs component consists of 10 questions: 11, 12, 14, 16, 18, 21, 22, 24, 26, 30. The attitudinal component consists of 10 questions: 13, 15, 17, 19, 20, 23, 25, 27, 28, 29. There are no reversed scored items. Questions are intended to establish a baseline for teacher attitudes and beliefs towards socialization in the brick and mortar classroom and compare that to the cyber school environment. The brick and mortar portion consists of 10 questions (10-20). The cyber school portion consists of 10 questions (21-30).

Demographic information was collected on the survey including age, gender, ethnicity, and education level. The following additional demographic information regarding teaching experience was included: educational setting of current employer, years teaching in brick and mortar and virtual environments, and if the participant has ever been a student in an online course.

Items are used to measure teachers' attitudes and beliefs of socialization of cyber school and brick and mortar students. Survey Instrument is attached in Appendix A.

Data Analysis

This research study was conducted to examine the differences in attitudes and beliefs about student socialization between virtual and traditional teachers of cyber school students in Pennsylvania. Data collection was open for a four week window between April 23, 2019 and May 20, 2019 in which the recruitment for participants was sent out three times. The first request netted 46 responses, the second request netted an additional 27 new responses, and the third request netted 3 new responses. During this window, 76 total responses were received on the Survey Monkey survey tool, with 65 of those responses being complete.

Data Screening

Data Analysis was conducted through statistical analysis on SPSS, Version 24. An alpha level .05 was used to examine significance. Data was exported from Survey Monkey into Excel and then uploaded into SPSS and recoded into numeric variables. In performing the pre-data analysis and data-screening, determinations needed to be made to addresses issues in data quality. In dealing with missing data, the decision was made to eliminate all incomplete responses, bringing the

number of responses from 76 to 65. Eight cases (4, 10, 39, 51, 52, 69, 73,75) were eliminated for incomplete data. Cases 34, 53, and 67 were eliminated because they selected "No" for the informed consent and therefore did not complete the survey. Additionally, case 43 listed AGE as "Over 50," which was recoded into "55". Data was screened for unusual values using frequency tables and descriptive statistics but none were identified. Descriptive statistics were used to examine the data for normality. Skewness and Kurtosis were between -1 and 1, therefore the data is normally distributed. Additionally, QQ plots were observed to be normal for both attitudes and beliefs. No transformation is necessary.

Demographics

The final population sample after all screening was performed, was majority female (95.4%). The ethnicity of participants was 98.5% white. The mean age of participants was 37.98 (+/- 8.72), while the median was 35.67 (range = 25-68). The majority of participants (67.7%) have completed a Master's Degree and with the remaining participants (32.3%) having completed a Bachelor's Degree. Slightly more participants (61.5%) are currently employed in a Brick and Mortar setting, while 38.5% are currently employed in a Virtual School setting. Within the population sampled, 92.3% have been a student in an online course. The mean number of years teaching in Brick and Mortar was 11.00 years (+/- 8.33), while the mean was 10.80 years (range= 0-28). The mean number of years teaching in Virtual was 1.35 years (+/- 2.32), while the median was .57 years (range= 0-9).

Table 1
Population Sample Demographics N(%)

		N (%)
Gender	Male	3 (4.6%)
	Female	62 (95.4%)
Ethnicity	White	64 (98.5%)
	Other	1 (1.5%)
Educational Setting	Brick and Mortar	40 (61.5%)
	Virtual	25 (38.5%)
Level of Education	Bachelor's Degree	21 (32.3%)
	Master's Degree	44 (67.7%)

In the following two tables provide an overview of the total frequencies of responses for brick and mortar students and cyber school students. This information is further broken down for clarification within each subsequent subproblems.

Table 2

Frequencies of Responses for Brick and Mortar Students N (%)

Question	Edu. Setting	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I believe that there is a need to encourage socialization of students in the brick and mortar learning environment.	Traditional Virtual	1 (2.5%) 2 (8%)	1 (2.5%) 3 (12%)	7 (17.5%) 3 (12%)	17 (42.5%) 15 (60%)	14 (35%) 2 (8%)
I believe that brick and mortar students are lacking in appropriate social skills.	Traditional Virtual	0 (0%) 0 (0%)	14 (35%) 6 (24%)	8 (20%) 9 (36%)	15 (37.5%) 9 (36%)	3 (7.5%) 1 (4%)
I think brick and mortar students need more peer socialization.	Traditional Virtual	2 (5%) 1 (4%)	11 (27.5%) 11 (44%)	9 (22.5%) 7 (28%)	16 (40%) 5 (20%)	2 (5%) 1 (4%)
I believe that brick and mortar classrooms promote social learning.	Traditional Virtual	0 (0%) 0 (0%)	0 (0%) 3 (12%)	4 (10%) 3 (12%)	24 (60%) 17 (68%)	12 (30%) 2 (8%)
I am concerned about the lack of socialization for brick and mortar students	Traditional Virtual	7 (17.5%) 3 (12%)	19 (47.5%) 14 (56%)	5 (12.5%) 7 (28%)	3 (7.5%) 1 (4%)	6 (15%) 0 (0%)
I believe that social interaction helps brick and mortar students learn.	Traditional Virtual	0 (0%) 0 (0%)	1 (2.5%) 1 (4%)	1 (2.5%) 1 (4%)	22 (55%) 17 (68%)	16 (40%) 6 (24%)
I think there are effective ways for students to socialize in the brick and mortar environment.	Traditional Virtual	0 (0%) 0 (0%)	0 (0%) 0 (0%)	1 (2.5%) 0 (0%)	23 (57.5%) 15 (60%)	16 (40%) 10 (40%)
I think students can achieve meaningful social interactions in-person in a brick and mortar school.	Traditional Virtual	0 (0%) 0 (0%)	0 (0%) 0 (0%)	0 (0%) 0 (0%)	19 (47.5%) 16 (64%)	21 (52.5%) 9 (36%)
I think that brick and mortar schools provide a social and interactive learning environment.	Traditional Virtual	0 (0%) 0 (0%)	0 (0%) 1 (4%)	3 (7.5%) 2 (8%)	19 (47.5%) 19 (76%)	18 (45%) 3 (12%)
I believe that brick and mortar students should be involved in extra-curricular activities outside of the classroom.	Traditional Virtual	0 (0%) 0 (0%)	0 (0%) 1 (4%)	3 (7.5%) 1 (4%)	21 (52.5%) 18 (72%)	16 (40%) 5 (20%)

Table 3

Frequencies of Responses for Cyber School Students N (%)

Question	Educational Setting	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I believe that there is a need to encourage socialization of students in the virtual learning environment.	Traditional Virtual	0 (0%) 0 (0%)	0 (0%) 0 (0%)	2 (5%) 0 (0%)	14 (35%) 15 (60%)	24 (60%) 25 (10%)
I believe that virtual school students are lacking in appropriate social skills.	Traditional Virtual	0 (0%) 0 (0%)	2 (5%) 13 (52%)	10 (25%) 4 (16%)	16 (40%) 5 (20%)	12 (30%) 3 (12%)
I think cyber school students need more peer socialization.	Traditional Virtual	0 (0%) 0 (0%)	0 (0%) 2 (8%)	6 (15%) 3 (12%)	20 (50%) 17 (68%)	14 (35%) 3 (12%)
I believe that virtual classrooms promote social learning.	Traditional Virtual	2 (5%) 0 (0%)	23 (57.5%) 2 (8%)	13 (32.5%) 5 (20%)	2 (5%) 17 (68%)	0 (0%) 1 (4%)
I am concerned about the lack of socialization for cyber school students.	Traditional Virtual	0 (0%) 1 (4%)	2 (5%) 7 (28%)	2 (5%) 10 (40%)	20 (50%) 4 (16%)	16 (40%) 3 (12%)
I believe that social interaction helps virtual school students learn.	Traditional Virtual	0 (0%) 0 (0%)	6 (15%) 0 (0%)	10 (25%) 1 (4%)	16 (40%) 19 (76%)	8 (20%) 5 (20%)
I think there are effective ways for students to socialize in the virtual school environment.	Traditional Virtual	0 (0%) 0 (0%)	9 (22.5%) 1 (4%)	15 (37.5) 3 (12%)	14 (35%) 17 (68%)	2 (5%) 4 (16%)
I think students can achieve meaningful social interactions virtually in a cyber school.	Traditional Virtual	0 (0%) 0 (0%)	21 (52.5%) 1 (4%)	13 (32.5%) 3 (12%)	6 (15%) 15 (60%)	0 (0%) 0 (0%)
I think that cyber schools provide a social and interactive learning environment.	Traditional Virtual	2 (5%) 1 (4%)	22 (55%) 1 (4%)	12 (30%) 4 (16%)	4 (10%) 18 (72%)	0 (0%) 1 (4%)
I believe that cyber school students should be involved in extra-curricular activities outside of the classroom.	Traditional Virtual	0 (0%) 0 (0%)	1 (2.5%) 0 (0%)	0 (0%) 2 (8%)	14 (35%) 10 (40%)	25 (62.5%) 13 (52%)

Sub-Problem 1

"What are the attitudes of traditional teachers about socialization of brick and mortar school students?"- was analyzed by using frequency distribution and other descriptive statistics. The attitudes of traditional teachers about the socialization of brick and mortar school students had a mean score of 18.95 (sd =2.46), while the median was 18.46 (15-24). The question which was most strongly agreed with was demonstrated that brick and mortar teachers think students can achieve meaningful social interactions in-person in a brick and mortar school. The question which was most strongly disagreed upon was that brick and mortar teachers are concerned about the lack of socialization for brick and mortar students.

Sub-Problem 2

"What are the attitudes of traditional teachers about socialization of cyber school students?" - was analyzed by using frequency distribution and other descriptive statistics. The attitudes of traditional teachers about the socialization of cyber school students had a mean score of 16.75 (sd =1.84), while the median was 16.59 (14-20). The response which was most strongly agreed with was that brick and mortar teachers are concerned about the lack of socialization for cyber school students. The response which was most strongly disagreed upon was that cyber schools provide a social and interactive learning environment.

Sub-Problem 3

"What are the attitudes of cyber school teachers about socialization of brick and mortar school students?" - was analyzed by using frequency distribution and other descriptive statistics. The attitudes of cyber school teachers about socialization of brick and mortar school students had a mean score of 17.72 (sd =1.77), while the median was 17.30 (16-22). The response that was most strongly agreed upon by cyber school teachers was that students can achieve meaningful social interactions in-person in a brick and mortar school. The question that was most strongly disagreed upon by cyber school teachers was if they are concerned about the lack of socialization for brick and mortar students.

Sub-Problem 4

"What are the attitudes of cyber school teachers about socialization of cyber school students?" - was analyzed by using frequency distribution and other descriptive statistics. The attitudes of cyber school teachers about socialization of cyber school students had a mean score of 18.56 (sd =1.89), while the median was 18.43 (15-22). Cyber school teachers most strongly agree that there are effective ways for students to socialize in the virtual school environment. Cyber school teachers most strongly disagree with the question asking if they are concerned about the socialization of cyber school students.

Sub-Problem 5

"What are the beliefs of traditional teachers about socialization of brick and mortar school students?" - was analyzed by using frequency distribution and other descriptive statistics. The

beliefs of traditional teachers about socialization of brick and mortar school students had a mean score of 20.08 (sd= 2.08), while the median was 20.00 (14-25). Traditional teachers most strongly believe that social interaction helps brick and mortar students learn. They most strongly disagree that brick and mortar students are lacking in appropriate social skills.

Sub-Problem 6

"What are the beliefs of traditional teachers about socialization of cyber school students?" - was analyzed by using frequency distribution and other descriptive statistics. The beliefs of traditional teachers about socialization of cyber school students had a mean score of 19.10 (sd= 1.97), while the median was 19.08 (15-23). Traditional teachers most strongly believe that cyber school students should be involved in extracurricular activities outside of the classroom. Traditional teachers most strongly disagree with the belief that virtual classrooms promote social learning.

Sub-Problem 7

"What are the beliefs of cyber school teachers about socialization of brick and mortar school students?" - was analyzed by using frequency distribution and other descriptive statistics. The beliefs of cyber school teachers about socialization of brick and mortar school students had a mean score of 18.60 (sd=2.10), while the median was 18.60 (15-23). Cyber school teachers most strongly agree that social interaction helps brick and mortar students learn. Cyber school teachers most strongly disagree with the belief that that there is a need to encourage socialization of students in the brick and mortar environment.

Sub-Problem 8

"What are the beliefs of cyber school teachers about socialization of cyber school students?" - was analyzed by using frequency distribution and other descriptive statistics. The beliefs of cyber school teachers about socialization of cyber school students had a mean score of 19.60 (sd= 1.58), while the median was 19.70 (16-23). Cyber school teachers most strongly agreed with the belief that cyber school students should be involved in extracurricular activities outside of the classroom. Cyber school teachers most strongly disagreed with the belief that virtual school students are lacking in appropriate social skills.

Sub-Problem 9

"What are the differences in attitudes between virtual teachers and traditional teachers on the socialization of cyber school students?" - was analyzed using an Independent Sample T-Test. An independent-samples T test comparing the means of the attitudes between virtual teachers and traditional teachers on the socialization of cyber school students, found a significant difference between the means of the two groups ($t(63)= -3.82$, $p<.05$). The mean of the traditional teachers ($M=16.75$, $sd=1.84$) was significantly lower than the mean of the virtual school teachers ($M=18.56$, $sd=1.89$). Effect size ($d=.97$) was large. Thus, the null hypothesis was rejected and the alternative hypothesis was supported, showing that there are differences in attitudes of traditional and cyber school teachers about socialization of cyber school students.

Both virtual teachers (68%) and traditional teachers (50%) indicated that they think cyber school students need more peer socialization. Note that 50% of traditional teachers indicated that they are concerned about the lack of socialization of cyber school students, while 40% of virtual school teachers responded neutral. The majority of virtual teachers indicated that they agree that there are effective ways for students to socialize in the virtual school environment (68%) and that cyber schools provide a social and interactive learning environment (72%). Comparatively, only 35% of traditional teachers agree that there are effective ways for students to socialize in the virtual environment and only 10% agree that cyber schools provide a social and interactive learning environment.

Sub-Problem 10

"What are the differences in attitudes between virtual teachers and traditional teachers on the socialization of brick and mortar students?" - was analyzed using an Independent Sample T-Test. An independent-samples T test comparing the means of the attitudes between virtual teachers and traditional teachers on the socialization of brick and mortar students, found a significant difference between the means of the two groups ($t(63)=2.17$, $p<.05$). The mean of the traditional teachers ($M=18.95$, $sd=2.46$) was significantly higher than the mean of the virtual school teachers ($M=17.72$, $sd=1.77$). Effect size ($d=.57$) was medium. Thus, the null hypothesis was rejected and the alternative hypothesis was supported, showing that there are differences in attitudes of traditional and cyber school teachers about socialization of brick and mortar students.

The majority of traditional teachers (40%) agree that brick and mortar students need more peer socialization, while the majority of virtual teachers (44%) disagree. Both groups of teachers selected agree or strongly agree for 100% of responses when considering if students can achieve meaningful social interactions in-person in a brick and mortar school. Similarly, 100% of virtual teachers and 97.5% of traditional teachers indicated that they agree or strongly agree that there are effective ways for students to socialize in the brick and mortar environment.

Sub-Problem 11

"What are the differences in beliefs between virtual teachers and traditional teachers on the socialization of cyber school students?" - was analyzed using an Independent Sample T-Test. An independent-samples T test comparing the means of the beliefs between virtual teachers and traditional teachers on the socialization of cyber school students, found no significant difference between the means of the two groups ($t(63)=-1.07$, $p>.05$). The mean of the traditional teachers ($M=19.10$, $sd=1.97$) was not significantly different than the mean of the virtual school teachers ($M=19.60$, $sd=1.58$). Effect size ($d=.28$) is small. Thus, the null hypothesis is supported that there is no difference in beliefs of traditional and cyber school teachers about socialization of cyber school students. Traditional teachers tended to agree (40%) that virtual school students are lacking in appropriate social skills, while virtual school teachers tended to disagree (52%). Both traditional teachers (40%) and virtual teachers (76%) agreed that they believe that social interaction helps virtual students learn, yet only 5% of traditional teachers believe that virtual classrooms promote social learning, while 68% of traditional teachers do.

Sub-Problem 12

"What are the differences in beliefs between virtual teachers and traditional teachers on the socialization of brick and mortar students?" - was analyzed using an Independent Sample T-Test. An independent-samples T test comparing the means of the attitudes between virtual teachers and traditional teachers on the socialization of brick and mortar students, found a significant difference between the means of the two groups ($t(63)=2.77$, $p<.05$). The mean of the traditional teachers ($M=20.08$, $sd=2.08$) was significantly higher than the mean of the virtual school teachers ($M=18.60$, $sd=2.01$). Effect size ($d=.72$) was medium approaching large. Thus, the null hypothesis was rejected and the alternative hypothesis was supported, showing that there are differences in beliefs of traditional and cyber school teachers about socialization of brick and mortar students. The majority of both traditional teachers (95%) and virtual teachers (92%) indicated that they agree or strongly agree that social interaction helps brick and mortar students learn. Note that 90% of traditional teachers selected agree (60%) or strongly agree (30%) to indicate that they believe that brick and mortar classrooms promote social learning. More virtual teachers (72%) than traditional teachers (52.5%) agree that brick and mortar students should be involved in extracurricular activities outside of the classroom.

Discussion

The present study was conducted to determine the attitudes and beliefs of two types of teachers, traditional teachers (N=40) and virtual school teachers (N=25), on the socialization of cyber school and brick and mortar students. It was hypothesized that there are differences in both attitudes and beliefs of traditional and cyber school teachers about socialization of cyber school and brick and mortar students. The hypothesis was partially supported because there was difference between the attitudes of brick and mortar teachers and cyber school teachers on the socialization of both cyber school students and brick and mortar students, as well as a difference between the beliefs of brick and mortar teachers and cyber school teachers on the socialization of brick and mortar students. However, there were no significant differences in the beliefs of brick and mortar teachers and virtual teachers on the socialization of cyber school students. Data collection took place using a researcher-created online survey over a period of four weeks. Statistical analysis was conducted using SPSS Version 24.

There were differences in attitudes of traditional and cyber school teachers about socialization of cyber school students. Virtual school teachers find that there are effective ways for students to socialize in the virtual environment and think that cyber schools provide a social and interactive learning environment, while comparatively smaller numbers of traditional teachers feel the same way. Additionally, traditional teachers were more concerned than virtual teachers about the lack of socialization of cyber school students. This difference may be caused by a lack of awareness and understanding of brick and mortar teachers about the type of interactions and socialization opportunities that are occurring in the cyber school environment. Furthermore, virtual school teachers may be demonstrating a bias towards their own work environment which could potentially lead to inflated attitudes about the socialization that takes place in their learning environment.

These results are similar to earlier work that concluded collaboration and interaction in the online environment may not be as strong as a factor of student success as it is in the face-to-face

environment (Szeto & Cheng, 2016; Zhao, Sullivan, & Mellenius, 2014). Both the present study and the previous research point to barriers in fostering appropriate opportunities for student interaction in the virtual learning environment. Additionally, brick and mortar teachers may not be aware of the types of learning opportunities available to virtual school students, which may have impacted why they do not believe that cyber schools provide a social and interactive learning environment.

Furthermore, there are differences in attitudes of traditional and cyber school teachers about socialization of brick and mortar students. Despite the fact that both types of teachers feel that there are effective ways for students to socialize in brick and mortar schools, more traditional teachers than virtual school teachers feel that brick and mortar students need more peer socialization. These results are similar to earlier research which found that home-schooled students demonstrated higher social skills than brick and mortar students (Koehler et al., 2002), as well as other research that shows that many of the interactions in the brick and mortar classroom are not demonstrations of positive social behaviors (Brint, Contreras, and Matthews, 2001). It is plausible that brick and mortar teachers feel that their students need more peer socialization because many of the observed behaviors of these students may be negative. Additionally, brick and mortar teachers may feel more strongly than virtual school teachers about the need for socialization of brick and mortar students because they are more exposed to and aware of that population.

Conversely, there are no differences in beliefs of brick and mortar teachers and cyber school teachers about the socialization of cyber school students. The majority of both traditional and virtual teachers believe that there is a need to encourage socialization of students in the virtual learning environment and that social interaction helps virtual school students learn. This research is similar to earlier work that suggests that virtual interactions may not be as powerful of a learning tool as in-person collaboration (Agudo-Peregrina et al., 2014; Joksimovića et al., 2015; Lee, Young Yoon, & Hyun Lee, 2013). Additionally, both types of teachers agree that cyber school students should be involved in extra-curricular activities outside of the classroom. This is similar to earlier research related to homeschooled children where homeschooled children were shown to be significantly lonelier than private school children (McKinley, 2007). These results demonstrate that both brick and mortar and virtual school teachers believe that social interaction can help virtual school students learn and should be encouraged, therefore suggesting that virtual school students would benefit from meaningful interactions among peers. These results may stem from both types of teachers observations and experiences in seeing how social opportunities have helped students or have yielded positive results in the classroom.

Furthermore, there are differences in the beliefs of brick and mortar teachers and cyber school teachers about brick and mortar students. While the majority of both types of teachers indicated that they believe that social interaction helps brick and mortar students learn, more traditional than virtual teachers believe that brick and mortar classrooms promote social learning. Additionally, traditional teachers more strongly believe that there is a need to encourage socialization of students in the brick and mortar learning environment. This supports earlier research that social learning and constructivism are a major trend in educational practice today and that present day educators are increasingly compelled to utilize interactive practices in the traditional classroom (Gunduz & Hursen, 2015; Krahenbuhl, 2016).

Moreover, the results from this study indicate three main findings, which are that social interaction is an important element of both learning environments, there is a need to promote the socialization of cyber school students, and brick and mortar teachers are more concerned than virtual school teachers about the socialization of students. In determining that social interaction is an important element of both learning environments, it can be seen that both types of teachers feel that socialization is important for any type of student. A possible reason for these results are that teachers are likely educated on Social Learning Theory and the works of Vygotsky and Bandura during their college-level teacher certification, and are therefore trained on the importance of utilizing social learning practices in the classroom.

There is a need to promote the socialization of cyber school students. Results of this study show that there is a greater level of concern for the socialization of cyber school students given the barriers to socialization in their learning environment. Despite the fact that past research is largely inconclusive as to the effectiveness of meaningful peer learning interactions in the virtual environment, the present study would indicate that teachers do not believe that online interactions are as powerful as in-person interactions (Bowers & Kumar, 2015; Deaton, 2015, Zhou et al,. 2016).

Brick and mortar school teachers are more concerned about student socialization than virtual school teachers. Teachers who are working in online learning environments may not be as concerned about student socialization because their experiences and observations working in the alternative learning environment may have changed their perceptions about what it means to be a student (or a teacher). Alternatively, teachers who choose to work in a non-traditional learning environment like a virtual school setting may already hold non-traditional values or perceptions about educational philosophy as a whole.

Implications for Educators

The main purpose of this study was to address a gap in the literature by better understanding how teachers view the socialization of cyber school and brick and mortar school students. The first implication of this research study for educators to consider the role that socialization plays in their classroom and further analyze how social learning takes place during their class. Given that this research indicates that teachers feel that social interaction is an important part of the learning environment, teachers should use these results as an exercise in reflection of their classroom teaching and make adjustments to encourage social learning as needed. The second implication of this research study is for school leadership and administration to consider ways to foster positive peer collaboration and socialization in their respective learning environments. Given that the results of this research study indicated that there is a need to promote socialization of virtual school students, virtual school leaders and administrators should continually research, implement, and train staff on new synchronous and asynchronous opportunities for virtual student collaboration and communication. Additionally, school administrators should consider holding professional development trainings on ways to encourage social learning opportunities in both types of classrooms.

Best practices to promote social interaction can be incorporated into both types of school settings. In the brick and mortar classroom, students should be provided with daily opportunities to work

as a collaborative group with peers. Student-centered station style learning is one technique that allows students to move throughout the classroom, completing assigned group activities at various stations. This encourages students to work as a team to accomplish a set of tasks, fostering communication and collaboration among the students. Additionally, Socratic circles provide students with an opportunity to engage in discussion as part of a community of conversation. During Socratic circles, students participate in dialogue with peers, both asking and responding to questions, to gain better understanding of a topic. This promotes socialization for students by providing an appropriate outlet for productive conversation.

In the virtual classroom, this activity can also be utilized during synchronous live session lessons. Students join on webcam and microphone and participate in the discussion much as they would in the physical classroom. In both settings, students should assign roles within the group to designate certain responsibilities of the group process, such as note taker or recorder, time keeper, and spokesperson or facilitator. Many other of the social methods used in the brick and mortar classroom can be modified to fit the virtual synchronous classroom as well.

Asynchronous virtual learning should also be designed to foster socialization among students. Teachers can create collaborative projects where students can complete assignments cooperatively using Google Docs, where students are able to complete portions of the work and see each other's contributions in live time. This program also allows for a chat feature where students can communicate as they are working. Discussion board postings should be designed to encourage student interactions by using relevant student-focused questioning and requiring thoughtful responses by peers. Providing students with sample discussion responses and a clear rubric or checklist of expectations can help promote more meaningful student discussions. One suggestion to engage students in online discussions is to allow them to choose the topic, or specific prompt, that they'd like to respond to. This type of virtual discussion, while not live or proximal, can help to create a community element in the classroom and promote relationship-building communication opportunities.

Limitations

Limitations exist within the present study. The researcher-created survey instrument may need to be further clarified for validity and reliability. Given that sampling was conducted in a limited demographic of Pennsylvania, it not be representative of the larger population and therefore results should not be generalized. The sample size of this study (N=65) was relatively small. Recruitment method was limited to social media postings on Facebook, and therefore may have excluded the opinions of individuals who do not use social media. Duration of study allowed for four weeks for data collection, which may have potentially limited the scope of the findings.

Suggestions for Future Research

The results of the present study provide many opportunities for future research. Further research is necessary in order to elaborate, clarify, and build upon the current findings. First, this study utilized a researcher-created survey tool for the first time, which can be further validated and deemed to be more reliable through additional pilot testing, usage, and modification. Second, this study allows for further opportunities to investigate why teachers feel a certain way about student

socialization. A follow-up qualitative study investigating why teachers subscribe to certain attitudes and beliefs about socialization of students would be applicable and help support the literature. Third, given the limitations of this study, expanding the population sample to participants in a larger geographic region and with a larger sample size can help increase the generalizability of the current results.

Conclusion

In conclusion, this study was aimed at better understanding teacher attitudes and beliefs about the socialization of brick and mortar and cyber school students. The results of this study yielded three major outcomes: teachers believe that social interaction is an important element of both learning environments, teachers believe that there is a need to promote the socialization of cyber school students, and brick and mortar teachers are more concerned with student socialization than cyber school teachers. In relationship to the theoretical framework of Vygotsky's Social Learning Theory, the results of the present study show support for the idea that peer social interaction is closely tied with learning, given the importance of this element as indicated by teachers. Additionally, given the uncertainties about the effectiveness of social learning in the virtual classroom, this study confirms that teachers of both type indicate the need to promote social learning and interaction in the virtual classroom.

About the Author

Kelley McConnell is practitioner, advocate, and scholar of online learning. Dr. McConnell holds a Master of Science in Instructional Technology from Wilkes University, as well as a Ph.D. in Strategic Leadership and Administrative Studies from Marywood University. Dr. McConnell is the Director of Data and Assessment at Reach Cyber Charter School, a public K-12 STEM-focused Pennsylvania online school. Her research focuses on socialization in the online learning environment, effectiveness of online learning, and cyber charter advocacy.

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