

Understanding High School Teachers' Perceived Discouragements to use Social Media Communication Technologies as a Pedagogical Tool to Improve Future Technology Integration Initiatives

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Initiatives to integrate technology into teaching and learning often lack a long-term follow up to gauge if those same initiatives set the stage for teachers to easily adopt the next stage of learning technologies. Using the ten-year anniversary of the Commonwealth of Pennsylvania's Classroom for the Future grant, where \$200 million were allocated for a statewide technology initiative to promote 21st century teaching and learning, this study's aim was to understand what type of barriers in-service teachers perceive regarding the use of social media communication technologies as a legitimate pedagogical tool. Participants were selected using a multi-stage cluster sampling method to ensure rural, town, suburban, and urban teachers were represented. Using the action areas suggested by Ashton et al. (1999) and Bonk et al. (2001), pedagogical, social, managerial, and technical; a typological analysis was done using the responses of 140 Pennsylvania secondary teachers' stated discouragements. During the analysis a fifth typology, internal school systems, emerged from the data. The most prominent categories were technological and managerial followed by social, internal school systems, and pedagogical. Ultimately, teachers feel that social media communication technologies are not viewed as legitimate teaching tools. To help teachers feel social media communication technologies are legitimate teaching tools policymakers and school leaders are encouraged to create an atmosphere that promotes administrative support, schedules that incorporate planning, and funds to provide ongoing training for teachers to stay current with technologies.

INTRODUCTION

Teachers' perceptions and use of Information Communication Technology (ICT) and Social Media Communication Technology (SMC) has been studied by various researchers for over a decade (Cakir et al., 2015, Kist, 2008; Laronde et al., 2017; Owen et al., 2016; Waters & Hensley, 2020, Yuen et al., 2011). However, most studies focus on a single school (Waters & Hensley, 2020) or use a case study approach (Churcher et al., 2014; Dennen et al., 2020; Hasiloglu et al., 2020; Krutka & Milton, 2013; Laronde et al., 2017, Tondeur et al., 2016). This approach, while valid and important, can limit the ability to generalize beyond the specific case, or district. Further, when examining teachers' perceptions, they are generally positive (Cakir et al., 2015, Laronde et al., 2017; Lee et al., 2015; Waters & Hensley, 2020) but researchers have found the adopting of such technology is limited (Alhassan, 2017; Capo & Orellana, 2011; Frank et al., 2015; Hasiloglu et al., 2020; Matzat & Vrieling, 2016; Waters & Hensley, 2020). With a general positive perception of ICT and SMC combined with the general lack of use, the aim of this study is to understand teachers' discouragements to adopting these technologies into their classroom.

To address the aim of the study, the researcher selected a state that enacted a statewide approach to integrate internet connected technology into teaching and learning as well as supported the effort with state technology standards. Further, the researcher recruited teachers from across the state in each of the four urban-centric locale codes (City, Suburban, Town, and Rural) to ensure maximum representation. To ensure that the teachers' voices were well represented, and not led by a predetermined bank of options, a qualitative, open-ended question approach was used. In addition to recruiting from all urban-centric locale codes, and using open-ended questioning, multi-stage random sampling was used to identify which schools, within each urban-centric locale code would be recruited. It was the intention of the researcher to find such strict parameters for the study to ensure, not only its rigor, validity, and reliability, but also a climate within a state that was supportive and progressive in their approach of integrating technology into teaching and learning. The state that met these criteria was the Commonwealth of Pennsylvania.

In the 2006-2007 academic year the Commonwealth of Pennsylvania began a three-year program aimed at developing 21st century teaching and learning in classrooms. The grant, called Classroom for the Future, provided \$155 million of its intended \$200 million budget. To further drive the use of innovative technology as part of a teacher's pedagogical practice Pennsylvania adopted cross-content technology elements into their educational standards. The Pennsylvania Core Standards, which are adapted from the national Common Core Standards, require students to use technology, including the internet, to publish and edit their writing in response to feedback as well as gather, analyze, and critique digital text sources.

Social media communication technologies provide engaging opportunities to use digital networks for teachers and students to be creative, as well as to collaborate, communicate, and critically think. The purpose of this study is to understand what type of barriers in-service teachers perceive in adopting SMC into their pedagogical practices. Using the landscape of studying these perceptions a decade after a \$200 million statewide technology initiative has been implemented to promote 21st century teaching and learning can provide meaningful empirical results, but also suggestions towards practical educational initiatives. Results of this study can inform policymakers, researchers, and those steering technology initiatives in school district as to what teachers view as barriers to using social media communication technology as part of their teaching practice.

THEORETICAL ORIENTATION OF THE STUDY

Ashton et al. (1999) proposed that instructors could enhance online courses when they act in the areas of social, managerial, pedagogical and technological. Instructors demonstrate social actions with behaviors such as empathy, interpersonal outreach, discussion of one's own online experiences, and humor. Managerial actions of instructors are when they coordinate how the online platform will be used for assignments. This can include, but not be limited to, explaining assignments, coordinating the receipt of assignments, assigning partners and groups, as well as setting due dates and extensions. Instructors engage in technological actions when they help a student with technology issues they encounter during the course. Bonk, et al. (2001), built upon Ashton et al. (1999) by adding a fourth action area of pedagogical. Pedagogical actions relate to an instructor's involvement in class activities. The four action areas of pedagogical, social, managerial, and technological provide the framework to analyze how these action areas discourage teachers' use of social media communication technologies as a part of their teaching practice.

LITERATURE REVIEW

From a review of the literature the themes of internal and external factors that limit teachers' use of social media communications were identified. Teachers encounter internal and external factors, which can be perceived as barriers to the implementation of social media communications as part of a pedagogical tool. The theme of external factors can be categorized into two subthemes – abstract and concrete. Abstract external factors are time commitment and the classroom management aspect of controlling the digital content. Concrete external factors are school district policies and

technical problems. Capo & Orellana (2011) suggest external factors have an impact on the internal factor, which is teachers' perceived usefulness of social media communication as a pedagogical tool. The internal factors that could affect the perceived ease or difficulty of use are teachers' perceived usefulness and lack of knowledge concerning social media communications. This section will focus on the external factor and internal factor themes that have been identified to affect teachers' perception of the ease or difficulty of using social media communications in their classrooms.

Concrete External Factors Impacting the Adoption of Social Media Communication Tools

School district policies impact how teachers view the use of social media in an educational setting. Some policies are directly related to how any internet connected technology is used while others are not as direct. Some school districts have policies explicitly restricting students' use of social media. When surveying 685 K-12 teachers, Carpenter and Krutka (2014) found 34% of the districts prohibited social media sites for only students, 15% prohibited social media sites for teachers and students, and 39% allowed teachers and students to access social media sites. Indirectly, school policies can impact how teachers use social media when funding streams do not support technology initiatives (Capo & Orellana, 2011). A lack of financial support could result in outdated and incompatible equipment that causes more technical problems than teachable moments.

When investigating the relationship between teachers' Web 2.0 tools self-efficacy and the extent teachers integrated the tools in their classroom teaching, Alhassan (2017) found that the greater the self-efficacy of the teacher the greater their use of Web 2.0 tools. However, the same study showed that only 65% of the sample used social media periodically. The main use of social media was to communicate with students or encourage the students to connect with experts in their areas of interest. Further, some teachers in Alhassan's study indicated the school's administration discouraged the use of social media with the students.

The Digital Divide, in which students do not have access to the internet or computers outside of school, is a major technical problem that teachers face when planning lessons that use social media communications as a pedagogical tool (Albert, 2015). If a district does not provide internet connected devices, students may not have access to lesson content shared on social media communications. Technical problems are not limited to outside educational settings. Within a school, problems exist that can prevent successful use of social media communications in a classroom setting such as network connections can be unreliable (Highfield & Papic, 2015; Horde-mann & Chao, 2012), technical problems related to the internet connected

device (Abulibdeh, 2013), and limitations of the internet browser software (Hordemann & Chao, 2012). Teachers must work within the parameters of their environment. School policies and technical problems are classified under the theme concrete external factors that teachers must reconcile before they can incorporate social media communications as a pedagogical tool.

Abstract External Factors Impacting the Adoption of Social Media Communication Tools

Abstract external factors that affect teachers' perceived ease of use of social media communications are the control over digital content and time requirements to use social media as a pedagogical tool. Concerns teachers have about controlling digital content have three components: technology use, privacy, and emotional posting. Technology use describes how students access the digital content. Students can access social media communications sites through any internet-connected device such as a computer, tablet, or mobile phone. Al-Bahrani and Patel (2015) found that a major concern was the overuse of internet connected devices in class. While teachers may incorporate social media communications into the class lecture, teachers were concerned that students would continue the use of their internet connected device and not be engaged in the lecture. Privacy is not only a concern for teachers, but also for students. Teacher privacy is centered on the protection of their personal life. In order to establish a clear boundary between their private and professional lives, teachers have created separate professional teacher profiles on social media communication networks to interact with students (Asterhan & Rosenberg, 2015). Churcher et al. (2014) found that some students shared concerns about the interaction between their social and school activities in a digital space.

The final concern over controlling the digital content is in the form of discussions starting as emotional postings and then manifesting themselves into incidences of cyber bullying. Through qualitative methods Levy et al. (2015) investigated one high school government teacher's use of a blog to engage students in political discussion. While the blogging offered opportunities for students to comment on one another's blog posts, the teacher did not actively encourage students to post in order to avoid heated exchanges. The teacher worried that the heated exchanges could evolve into incidences of cyber bullying. Cyber bullying is a legitimate concern, just as any issue that may harm students. In a mixed methods study on decreasing risky behavior on social media communication networks, Vanderhoven et al. (2016) found that parent involvement, especially for boys, changed students' intentions to engage in poor behaviors online. As with many student interventions, incorporating their parents can be effective. No matter the level of

parent involvement, the teacher has the duty to guide all discussions, face-to-face or in the digital space, to stay on topic and provide an environment for students to learn (Churcher et al., 2014).

When investigating the perceptions of science teachers use of social media communications with students, parents, and colleagues, Hasiloglu et al. (2020) found that although teachers see value in social media, they are still cautious about its use. The study suggested the use of social media provided opportunities for the teachers to contribute to the development of the students, those same teachers were reluctant to remain in contact with the students. The reasons cited for the reluctance to remain in contact was because of concerns over abused and excessive use. Further, the teachers felt they were unable to communicate without the possibilities of controversies between parents and teachers.

Teachers experience the barrier of a lack of time in and out of the classroom when implementing technology initiatives. When studying 1222 secondary school teachers' technology adoption, Govender (2012) found that 45% of the teachers felt there was insufficient time in class to use internet connected technology. With limited class time to work with students, teachers must choose a pedagogical approach they are confident to use. Govender suggests the lack of technology acceptance could be influenced by the lack of confidence on the part of the teachers.

Dennen et al. (2020), also found that teachers selective use of social media for in-class activities in their study of how social media is used in high schools. They found that while teachers may use social media, like Pinterest, for lesson or classroom decorating ideas, most students will use social media for homework help, showing that what shaped the use of social media had more to do with the role of the user in the school. These role differentiations went so far as students viewing teachers on social media as surveillants and disciplinarians rather than peers. Further Dennen et al. (2020), found that most school adults, aside from the librarian, were in a position to address digital literacy or digital citizenship. Overall teachers struggled with how to negotiate legitimate use with potential distractions.

The lack of time outside of class can develop because of school district initiatives competing for teachers' planning and preparation time. In a case study of a single secondary social studies teacher's use of a Facebook group to encourage students to complete their homework, Mourlam (2013) found that the teacher struggled to find time to use the Facebook group. The teacher reported that since the school district had a policy where teachers were required to post their assignments on the district lesson plan website the teacher had to enter all assignments online twice, once on the district lesson plan website and another on the Facebook group. The act of posting

assignments twice eventually caused the teacher to neglect the Facebook group and focus on the district lesson plan website. When interviewing the students, it was found that 67% wanted more interaction on the Facebook group and 40% disliked the limited amount the teacher used the Facebook group. With limited time teachers must choose where they will focus their efforts. Often teachers will focus their efforts in the direction of a district initiative, especially as principals provide resources for those who are moving the initiative forward (Frank et al., 2015).

Internal Factors Impacting the Adoption of Social Media Communication Tools

A teacher's perceived usefulness of social media communications is related to their experience with, and knowledge of, social media communications in their personal life. Teaching level and years of teaching experience has been found to have no significant effect on teachers' perceived usefulness of social media (Yuen et al., 2011). However, teachers who use social media communications in their personal life and have higher technology skills viewed social media communications and computer technology to be more useful in a classroom (Asterhan & Rosenberg, 2015; Lowther et al., 2012). The technology skills and experience with social media communications use relates to Govender's (2012) suggestion that a lack of confidence with technology can lead to a lack of technology adoption within classroom teaching.

Maor (2003) investigated the role of a teacher in an online learning community. In the qualitative study it was found that a teacher embodies four roles in an online community – pedagogical, social, managerial, and technical. If a student encountered a problem, the teacher was required to assume the technical role and assist the student. From Maor's study it was suggested that professional development should be offered to help teachers develop the needed skills to teach in an online setting. Teachers' lack of knowledge (Mourlam, 2013) and lack of training (Capo & Orellana, 2011) has been investigated and found to be a factor in how easy or difficult teachers view the act of using social media communications as a pedagogical tool. Without training or experience to increase a teacher's knowledge and familiarity with social media communications it will be difficult for teachers to perceive social media communications as a useful tool in their pedagogical practice.

Summary of the Literature

Teachers experience many factors, internal and external, that shape the way they view the ease or difficulty of using social media as a pedagogical tool. From a review of the literature, the external factors identified are school district policies, technical problems, controlling digital content, and

time. The internal factors that could affect the perceived ease or difficulty of use are teachers' perceived usefulness and lack of knowledge concerning social media communications.

METHODS

Research Context

The purpose of this study is to understand what type of barriers in-service teachers perceive in adopting SMC into their pedagogical practices. Using the landscape of studying these perceptions a decade after a \$200 million statewide technology initiative has been implemented to promote 21st century teaching and learning can provide meaningful empirical results, but also suggestions towards practical educational initiatives. Results of this study can inform policymakers, researchers, and those steering technology initiatives in school district as to what teachers view as barriers to using social media communication technology as part of their teaching practice.

Participants

A sample of 251 secondary school teachers within Pennsylvania responded to the survey. Respondents were selected based on the inclusion of their school building in the sampling procedure and site permission granted by the school district administration. The response rate was 21.8%. Cases with missing values on the variables of interest were subject to list-wise deletion, resulting in an analytic sample of 140 teachers.

Each of the four urban centric locale codes was represented in the sample. The most represented locale code was rural (48.20%), followed by suburban (19.42%), town (16.55%), and urban (15.83%). The years of teacher service within the sample had an average of 14.66 years in public education, with 12.15 years at their current schools. The majority of teachers (56.43%) taught Pennsylvania mandated tested subjects (i.e., math, science, or English language arts). Participants identified as either female (58.57%) or male (41.42%), and reported ethnicities as White (97.86%), African American (0.71%), Hispanic (0.71%), and White/American Indian (0.71%). The highest levels of education reported by the participants were master's degree (37.86%), post-master's graduate credits (30.71%), post-baccalaureate graduate credits/level II teaching certificate (24.29%), four-year college degree (5.71%), and doctoral degree (1.43%).

As a point of comparison in the 2016-2017 Professional Personnel Individual Staff Report (Pennsylvania Department of Education, 2018) the Commonwealth of Pennsylvania employed 30,201 full-time professional

teachers in the 2016-2017 academic year. The most represented locale code within the Commonwealth was suburban (48.05%), followed by rural (23.39%), town (14.93%), and urban (13.64%). Although the sample is overrepresented by teachers from rural areas and underrepresented by teachers in suburban areas, teachers from towns and urban areas are relatively proportional to the population. The years of teacher service within the population had an average of 14.48 years in public education, with 13.03 years at their current schools. The majority of the teachers (51.63%) taught Pennsylvania mandated tested subjects (i.e., math, science, or English language arts). Racial and ethnic data was not available. The highest level of education reported were master's degree (56.95%), four-year college degree (42.11%), and doctoral degree (.93%). Although the population does not account for post-master's graduate credits and post baccalaureate graduate credits, if the sample is organized by highest degree earned the sample is relatively aligned to the overall population with master's degree (56.95%), four-year college degree (42.11%), and doctoral degree (.93%).

Data Collection

A multi-stage cluster sampling procedure was used in the spring of 2017 within the Commonwealth of Pennsylvania. School districts are classified by the Pennsylvania Department of Education with urban-centric local codes. The four main categories of the urban-centric locale codes are city, suburb, town, and rural (Pennsylvania Department of Education, 2010). Within each locale code, school districts were randomly sampled, and within each school district secondary school buildings were randomly selected if more than one secondary school building was used within a single school district. Respondents completed the Social Media Communications in Public Education Questionnaire (Tozer, 2017). Within the perceptions section of the survey open-ended response questions were asked about what encouraged and discouraged the use of social media communications as a teaching tool?

Respondents completed the Social Media Communications in Public Education Questionnaire (Tozer, 2017). The survey was based on the constructs of the theory of planned behavior (Ajzen, 1991). Consisting of six sections, the survey collected information about participants' teaching experience, past use, as well as their current, and intended use of SMC in teacher lectures, in-class assignments, and out-of-class assignments. The remaining sections collected teachers' perceptions of social media use in educational settings (attitudes, subjective norms, and perceived behavioral control) as well as demographic information about the participants. Within the section questioning teachers about their current use of social media communications two open-ended questions asked the best and worst ways social media

can be used as a teaching tool. Within the section questioning teachers' perceptions two open-ended questions asked what encourages and discourages teachers to use social media communications as a teaching tool.

Data Analysis

Qualitative data were analyzed by typological analysis (Hatch, 2002). The action areas suggested by Ashton et al. (1999) and Bonk et al. (2001), pedagogical, social, managerial, and technological, were used for the typologies to be analyzed. All statements given by the teachers under the question "What discourages your use of social media communications as a teaching tool?" were compiled and coded based on the statement's alignment to the descriptions of Ashton et al. (1999) and Bonk et al. (2001). During the typological analysis a fifth typology, internal school systems, emerged from the data. These statements were ones that did not align to the predetermined typologies and addressed concerns beyond Ashton et al. (1999) and Bonk et al. (2001). Internal school systems encompass themes related to administrative support and district policy.

RESULTS

Each of the four typologies derived from Ashton et al. (1999) and Bonk et al. (2001) were present in the data. The most prominent categories were technological and social. Technological concerns had 43 responses, managerial concerns had 33 responses, social concerns had 29 responses, internal school systems concerns had 26 responses, and pedagogical concerns had 15 responses. Some teachers provided extended responses that were able to be coded into more than one typology concern.

Technological Concerns

Within the technological concerns, where 43 responses were identified, the dominant themes focused on reliability of the internet network/lack of technology access (16), personal knowledge of technology (14), or problems with specific technology tools (13). Describing their technological discouragements regarding the reliability of the internet network/lack of technology access, many of short responses stated, "Occasional access problems" "Ease of access at our school" "Computers can be slow and not dependable" "Technology is not always reliable" "poor wi-fi (sic) connections" "Lack of technology available." When teachers highlighted access concerns, it was equally centered on access in the classroom for students and teachers and access for students at home. When describing the lack of access in the school building they stated, "Not being able to share some aspects of it in the classroom due to not being able to access it." Others, when

focusing on student access stated, "Lack of technology and infrastructure, lack of student access to technology at home." Another teacher whose statement focused on student access also used equity as a justification for not using social media, "...cellphones and social media is discouraged. Also, my kids are low income (sic), and many do not have a computer or smart phone. If it can't work for all, why do it." Finally, the remaining focus on access explicitly targeted the restrictions within the school's network, such as firewalls, blocked sites, and web filters. One teacher stated, "Social media blocks on some forms of social media is blocked by the school districts appropriate use technology."

When discussing their lack of personal technical knowledge, a majority openly admitted the lack of knowledge held them back from adopting the use of social media into their pedagogical practices. Of the shorter answers provided they stated, "I don't know how" "Unsure how to use it" "The lack of technology knowledge." Three separate teachers provided more detailed responses. The first stating, "Ignorance is the only thing that holds me back from using more media communications." The second teacher stated, "The lack of training to better use social media communications as a teaching tool in my classroom...Internet usage being down at times and problematic issues popping up regarding technology." The third teacher stated, "The lack of training on technology within the district. Or rolling platforms out for teachers to use that do not function correctly."

The final area related to technological concerns was focused on specific tools and the issues that arise when using them. Most of the concerns revolved around the age of the technology tools, as due to the age there was a loss in functionality. One teacher stated, "The technology in my school district is very outdated." A second teacher said, "Having adequate computers, iPads (sic), and devices to use." A third teacher stated, "availability of resources, lack of tech support, antiquated tech infrastructure."

Managerial Concerns

Within the managerial category the dominant themes focused on the amount of time needed to prepare or implement lessons with a small number of teachers concerned with supervising their students using social media communication technologies. Of the 33 statements coded to have managerial concerns, 19 cited concerns about time, and 13 cited concerns relating to supervision.

Many of the teachers' responses related to time concerns were short with a few stating, "Time needed to learn different tools," "time-consuming," "Time and relevance," "more work – revise and redo," and "Can be labor intensive." A few teachers provided more lengthy responses, such as,

“The hassle of creating and monitoring accounts while also creating valuable content on top of an already packed schedule.” One teacher stated, “it can be another thing that I have to add to my to do list.” Similarly, another teacher stated, “Too many other duties that take away my ability to research and get comfortable with other tools.”

Some teachers echoed a similar concern about the time needed to feel comfortable but focused more on the comfort related with the quality of their lessons. One teacher stated, “Myself about time and use of it in benefiting the student learning without hindering my expectations” while another responded, “The time it takes to correctly plan and organize it.” Finally, another teacher felt their time planning would not be worth the distraction the tool would cause to the students, thus diminishing the lesson’s effectiveness when they stated, “Amount of time planning for it, students’ inability to pay attention to the assignment.”

Although time was the dominant theme regarding managerial concerns, supervision and monitoring of the students was the other theme. The inability of the student to pay attention highlighted in the final quote summary of the time concerns bridges the two main themes of time concerns and supervision and monitoring of students. Some of the shorter responses were, “Supervision,” “the worry of misuse by students,” “difficult to access or monitor,”

Some teachers provided longer responses that unpacked their supervision and monitor concerns more. One stating, “I have a computer lab, I do not need kids on their own devices while in my room, it is more of a distraction than anything.” Another focused on distracting communications between students, “abuse by students not doing what they are supposed to do ex: texting.” Another, responded, “The students often get distracted and lose focus on what they are suppose (sic) to be doing.” Finally, one teacher also stated, “Teenagers are on it all the time. There is room for negative results to occur without things being fully monitored.”

The concern revolving around supervision and monitoring also had concerns over the teachers’ level of control during the lesson. Some shortly citing control issues, “A lack of control;” with others providing more context, “I do not wish to have total control, but I am not comfortable giving up THAT much control of a situation.” Some more focused on the negative consequences when they don’t have more control, “There are so many things that could go wrong and then it is out “there” for everyone to see.” With another responding, “not having control of post or outside communication.”

Social Concerns

Within the social category 29 concerns were identified. The most dominant theme focused on safety (12) such as inappropriate use by students to cyber bully, followed by being viewed as unprofessional when using non-education designed social media (9), potentially blurring the lines of the teacher-student relationship (5), and the fact that social media has a public facing aspect that can be negative (3). All of the social concerns could relate back to teachers' professionalism within the school or larger community.

Regarding the 11 responses focused on safety many of the responses were more descriptive, however some teachers provided the following shorter responses that were more generalized, "Dangers of social media," "Safety/bullying," "student misuse/cyber bullying", "Likelihood of misuse by students," "The dangers of cyberbullying and unsafe use of these tools," and "Potential negative implications." Some of the safety concerns echoed concerns over the teacher's control. These were coded as social because of the broader social aspects associated with how students interacted with the social media. An example of such safety and control is when one teacher stated, "pop up ads and inappropriate pictures and language that magically show up." While another teacher wrote, "fear of inappropriate material hidden within video/article/discussion." Some teachers also recognized they were at risk as much as their students were when one teacher responded, "The potential inappropriateness, dangers, and issues for both me and my students."

The theme of how these tools are viewed as unprofessional or not legitimate teaching tools provided much more descriptive responses from the teachers. Although shorter responses such as, "public opinion" were provided the majority of the responses were lengthy in comparison to statements related to other themes. Some of the shorter responses in this theme were, "NEA; PSEA; WAEA think it is a bad idea," "How using some of these sights (sic) can be viewed as 'unprofessional.'" "The perception of people outside of educational circles," and "narrow minds and lack of understanding of technology's importance in today's (sic) society." Some of the more descriptive and lengthy responses are as follows. One teacher stated, "The concern of controversy in using social media communications as not looked upon as legitimate 'teaching.'" Another focusing on the perception of the larger community had the following response, "news about inappropriate uses by educators and students, the overall teenage culture where students CANNOT get away from issues on social media and it poorly affects their concentration/focus on meaningful tasks." One teacher even calling out problems with specific tools, even focusing on the quality of the material, seemingly reinforcing why social media isn't viewed as a legitimate tool when they wrote, "Facebook can be a dangerous place and can threaten your career very easily if used inappropriately or if it is presumed that you are using it inappropriately. Also, poor Youtube (sic) performances are available as well."

The idea that the perception of inappropriate use was further described by teachers directly connecting it to inappropriate relationships with students, whether those relationships were actually happening or not, some teachers feared the perception was enough to ruin a career and therefore discouraged their use of social media. One teacher stated, "I don't want to in any way be connected to my students through SMC, it seems to be a good way to bring about lawsuits." Another teacher responded, "Ethical conflicts of interest between[n] then teacher-student relationship." While still another wrote, "Nightmareish (sic) stories of teachers who have taken it too far, allowed it to become too personal." One teacher described in detail how a real situation of educator misconduct discouraged their use for fear of someone else inappropriate behavior being projected on to them.

"The fact that a band director in a nearby district was caught having sexual relations with a student. I don't want people to think I communicate with students personally on social media so I only use it for general announcements for families (sic)."

The final theme within the social concern related to the public facing aspect of the social media posts. One teacher stating, "The chance of typed text being misunderstood and taken out of context." Another wrote, "There are so many things that could go wrong and then it is out "there" for everyone to see." Another teacher succinctly responded, "retweets." These statements highlight the lack of comfort some teachers have with the public facing aspect of their posts on social media.

Internal School Systems Concerns

Within the internal school systems category 25 concerns were identified. The dominant themes focused almost entirely on restrictive school policies (15), as well as a few concerns of a lack of funding (7) and liability (3). Although most concerns were broad as just stating high level concerns related to the internal school systems, some teachers cited specific aspect of the internal school systems that discouraged them.

The internal school systems that focused on school policy provided a range of responses that were high level as well as more specific. When teachers cited policy concerns some of the shorter answers were, "School policy," "school policy, kids abusing it, filters etc." One teacher provided a little more information relating to the general school policy reference when they stated, "school policy - however I have lots of flexibility in the classroom. We have just opened up youtube (sic)- this year."

Some teachers were more specific about the concerns relating to policy, some with the explicit policies cited, others with implicit policies. When focusing on the school administration a few replied, "Admin, layers, parents," "disapproval/threat of discipline from admin/board," "cellphones and social media is discouraged," "Administration or others who believe it does not

belong in an effective classroom session,” “The administrative restrictions applied to using technology,” “Past experiences with past administrations, filters blocking websites at school, lack of training,” and “The approvals from administration.” When citing specific policy one teacher stated, “Our network computers block all social media sites and our school has a no cell phone policy.” Another replied, “Social media blocks on some forms of social media is blocked by the school districts appropriate use technology.” And finally, this teacher cited how their district provided technology is not ready to use current social media as well as how they are restricted from finding alternatives when they stated, “The technology in my school district is very outdated. Furthermore, students are banned from using cell phones for any purpose.”

The reference to the outdated technology hinted at another theme within the internal school system concerns, funding. Funding was shown a few times in direct references but mostly indirect references. One teacher directly referencing funding stated the following, “That some of these cost money and my school will not pay for anything.” When other teachers referenced themes that could be classified as funding, or lack of funding they referenced inadequate technology. One teacher stated, “Lack of technology in my personal classroom to carry on with the use of social media.” Many of the indirect references did focus on the school technology being inadequate in scale or availability, with a few teachers stating the following, “I’m discouraged in the use of social media communications when the infrastructure of the network at our building does not provide enough Wi-Fi for the students,” “Lack of technology and infrastructure, lack of student access to technology at home,” and “The lack of technology in the building.”

When referencing liability concerns two of the three responses succinctly and explicitly stating, “Liability.” The other teacher that cited liability concerns addressed their liability concerns in a very detailed response when they stated,

“SMC are often viewed as liabilities (sic) and risks due to the difficulty in managing their use. It is understandable that my coworkers, administrators, board, and community members might be reluctant to support the use of SMC for legal and other reasons. I am discouraged from using SMC out of fear of disciplinary action against me, stability of my position, and administrative support. Though I truly believe SMC is a necessary part of preparing our students for the future, I also truly feel that utilizing SMC puts my job in jeopardy.”

Pedagogical Concerns

In the final category of pedagogical, which had the fewest number of responses 14 in comparison to the other categories. The most dominant themes within the pedagogical category were that it wasn't viewed as part of legitimate teaching practices by the teachers (5), concerns over a lack of student engagement (4), concerns of not working well for the content or diminishing the content (4), and finally, one teacher was concerned of over-use. The large majority of the responses seemed more focused on the teachers' internal views than direct impact from external pressures.

When citing concerns that using social media was not part of legitimate teaching practices, one teacher stated, "I am not a fan of social media at all and do not have any social media. I find it to mostly be a gimmick in classes and not actually authentic or engaging." The gimmick idea was also implicitly referenced by another teacher that responded, "Confusing 'work' with 'play.'" Other teachers were not as critical of social media, but still felt it was not the best method to teach their students. One teacher stated, "I have methods that are successful without the use of social media, and I don't see it as worth the risk." Another teacher citing, "Lack of supported practice." Finally, a teacher that seemed to imply using social media was not a positive way to develop a classroom stated, "It takes away from the classroom aspect of a school."

When teachers showed concerns about integrating social media into their pedagogical practices some focused on the risk of diminishing the quality of the content being taught. Broadly speaking, one teacher stated, "Access to bad information." However, the other responses referenced the specific subjects of mathematics and language arts. The two teachers that cited specific mathematics concerns stated, "It's not easy to learn mathematics or to teach mathematics digitally." And the other responded, "lack of value-added to math content." The one teacher that cited concerns over language arts did not only address the explicit content in language arts, but showed concern over critical thinking skills when they stated, "The fact that students are addicted to their phones, they can't think for themselves, and their lack of quality communication skills outside of social media. Twitter and texting have virtually destroyed their spelling and grammar skills."

Lack of student engagement was another concern that teachers cited when being reluctant to use social media as a teaching tool. One teacher stated, "[T]here are times when students are not engaged in the assignment/task. When this occurs, the assignment must be changed or modified. Lastly, if there is too much use of social media communications, students become bored. They need an array of approaches to learning." Another teacher wrote, "Kids get distracted. It starts out as a learning tool and turns into a play tool." Two teachers not only showed concern of student disengagement, but also concerns about students' ability to have more

genuine in-person engagement. One teacher responded, "Immediate student disengagement. Marginalizes importance of face-to-face communication in student's eyes." While another teacher stated, "I am discouraged by how little the students actually listen to me. They need to be able to take verbal communication and apply it to a project or assignment as well as through Social Media."

Although unknown if the teacher meant any connection to the lack of engagement, there was one teacher that cited overuse as a concern. The teacher stated, "Students are using it too much." As the teacher provided no other context it was more difficult to categorize this response; it is placed in the pedagogical category since other teachers cited overuse as a supporting point for their larger pedagogical concerns, mainly in lack of engagement.

DISCUSSION

The author recognizes that the data collection, analysis, and results were prior to and during the 2020 global pandemic. Further, the author acknowledges that the pandemic, in its own way has had an impact on how schools view, accept, and use technology as part of their pedagogical approaches, however, as the profession of education enters a landscape with pandemic mitigation strategies, the results and concerns expressed by the teachers in this study are still valid and should be taken into account as school administrators work to lead the current climate of education.

As the results have suggested, teachers are discouraged to use social media communications because they feel they lack an important attribute to fully integrate them into their teaching practices. Using the lens of Ashton et al. (1999) and Bonk et al. (2001), pedagogical, social, managerial, and technological, as well as the typology of internal school systems that emerged in this study allows the results to be understood in relation to the internal and external factors that discourage teachers' use of social media communications as a pedagogical tool. These internal and external factors revealed in this study align to the growing body of literature, which provide further guidance for school administrators to lead technology initiatives.

Teachers feel their technological concerns are barriers to accessing technology and the reliability of their WIFI networks, further compounded by their lack of training to resolve the issues if they occur in the classroom. These results are not surprising when compared to Alhassan's (2017) study that recommended that schools should be providing periodic maintenance of the technical infrastructure to ensure high-efficiency internet service, as well as initiate a maintenance schedule for computers and increase the availability of both computers and internet access. This study supports Alhassan's finding that teachers need to feel the reliability of their access to updated

hardware, and reliable connection to the internet would mitigate many of the technological concerns. Further, this study supports the finding of Laronde et al. (2017) when both the teachers and administrators recognized the lack of professional development and resources were barriers for teachers to increase their use of internet connected technology.

Summarizing the technological concern category, teachers feel it is difficult to integrate social media into their pedagogical practices due to a variety of technology related reasons. The primary reasons are the reliability or access to technology and the schools WIFI. In addition to a school's WIFI, teachers also are concerned about how students and themselves can access the technologies. Either through the lack of technology some students have at home, or that the school restricts access to the sites. A teachers' technical knowledge is also a barrier that prevents their adoption of social media.

Managerial concerns show teachers feel they either don't have the time to prepare meaningful lessons or they worry they will not be able to fully monitor and supervise the students. Although it seems that the research explicitly citing monitoring concerns is almost a decade old (Govender, 2012; Mourlam, 2013) a more recent study by Waters & Hensley (2020), suggest the implicit concern of managing the social media in the classroom when results suggested, that teachers prefer the use of social media more for their own collaborative learning tool for professional development than a collaborative learning tool for students. Although more of the recent literature is not explicitly citing preparation time and supervision concerns held by teachers, this study does offer multiple teachers' voices suggesting that is a legitimate concern.

Social concerns results support a common concern shared from early studies (Kist, 2008) through recent studies (Hasiloglu et al., 2020). Social concerns held by teachers are not entirely surprising, especially when viewing the behavior of using social media communications as a teaching tool through Ajzen's (1991), Theory of Planned Behavior. Ajzen notes the role that important others have on the willingness of an individual to engage in a specific behavior. Many of the social concerns have a larger community vantage point that would tarnish the teacher's professional and personal reputation. Since the community that surrounds a school is viewed as an important other in a teachers' context, those same teachers will be very cautious to engage in a behavior that would cause the important others to view the teacher negatively. Professional reputation is important to teachers as shown by the teachers who shared their concerns in this study to the teachers that gave up their MySpace pages in Kist's (2008) study to even the more recent teachers who avoid social media interactions with parents for fear of controversies in Hasiloglu et al. (2020), study. These studies show the teachers are working hard to ensure the important others view them positively.

Internal school systems, which was the typology that emerged from the data, was primarily populated with concerns around explicit or implicit school policies, funding, and the liability of a teacher. If teachers feel the use of social media is not supported by school administration, whether those feelings are supported by explicit policies or directives from administration or unfounded fears of exposed liability, they will not use it as a teaching tool. It appears this study found multiple teachers whose experience mirrored those sampled in Alhassan's (2017) study where some teachers had been instructed by the school administration not to use social media with students.

These findings in relation to internal school systems are concerning as it puts teachers in a difficult position. Teachers have pressure from state standards that directly reference the use of technology (Pennsylvania Department of Education, 2014a; 2014b; 2014c; 2014d) to be used as a pedagogical tool for collaboration. However, when a school policy or an implied directive seems to discourage the use of technology that allows students to easily collaborate, like social media communications, teachers are unable to easily follow the state standards and their directives of their school administration. Further, when teachers cite funding issues as a barrier it can be harder to understand why those funding issues may be so prevalent when federal programs like E-Rate (Federal Communications Commission, 2016) or statewide programs, such as the Classroom for the Future Grant have been enacted to address funding concerns. Regardless of the reasons for a lack of funding, or policies that run counter to required standards, teachers can do little to resolve the internal school system concerns without school administration leadership and support.

Pedagogical concerns found in this study support previous studies. The concerns about if using social media is a legitimate tool as well as the lack of engagement reinforce what Dennen et al. (2020) found when their study suggested teachers struggled to balance legitimate use in the classroom while reducing potential distractions the tools might pose to the students. What may support the concerns of legitimate content not being available, is a recent study of more well-known private online tools for teachers to find educational content. Shelton et al. (2021), provided a critical exploration of the content offered on TeachersPayTeachers and found concerns with the available content as well as how the content was rated to be deemed of high quality; the study found ratings were universally high. Further, the content model on TeachersPayTeachers seems to redefine what is quality education, when holiday activities and classroom decors are evaluated on the same level as established curriculum. Shelton et al. (2021), concluded that although the teachers providing the ratings recognize their professional qualifications, there are still concerns how TeachersPayTeachers dictated terms by which the evaluations happen. Although pedagogical concerns were the least

prevalent in this study that should not diminish the importance of the pedagogical concerns held by the teachers in this study. Both the Dennen et al. (2020) and Shelton et al. (2021) show that the pedagogical concerns found in the current study are supported by other studies.

CONCLUSION

Within their own schools, teachers feel they lack administrative support to the point some are worried about the safety of their jobs. Concerning their management of social media communications, teachers feel they lack time to prepare meaningful lessons that integrate social media communications. Socially teachers feel social media communications lack legitimacy as a professional teaching tool. Pedagogically, teachers feel the integration of social media lacks reliable results and more familiar non-digital methods are more effective.

Ultimately the keystone to solve these discouragements is embedded in social discouragement. The educational community must accept the use of social media communications as a legitimate teaching tool in order to resolve the other cited discouragements. Although researchers have been highlighting the benefits of using social media communication technologies as a teaching tool, such as lessons being more student centered (Lowther et al., 2012), variety of formative assessments (Carpenter & Krutka, 2014), and more immediate feedback to students (Krutka & Milton, 2013), for quite some time it has been slow to be adopted into regular public education at large in preference of teachers using social media for their own collaborative learning over the students use for collaborative learning (Dennen et al., 2020; Waters & Hensley, 2020).

The money provided to school districts through the Classrooms for the Future grant was not meant to be used to adjust social stigma, but respond to Pennsylvanians wanting their schools to incorporate 21st century teaching and learning. Although school leaders are beholden to their community standards, they are also endowed with the responsibility to continually lead a school towards the needs of the future. If it is recognized that digital technology, including social media communications, will be part of each child's future, school leaders are encouraged to support teachers' use. By providing more open support through policy, scheduling, and training, based in the research suggested practices, school leaders will be able to help not only legitimize the use of social media communications as a teaching tool, but also resolve teachers' discouragements of lack of administrative support, lack of time, and lack of training. Through legitimation, administrative support, scheduling, and training teachers will be able to expose their students to high quality 21st century teaching and learning that incorporates social media communications as a best practice teaching tool.

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