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The Intersection of Social and Emotional Learning, Shy Students, and the Flipped Classroom

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THE INTERSECTION OF SOCIAL AND EMOTIONAL LEARNING, SHY STUDENTS, AND THE FLIPPED CLASSROOM

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Abstract

The importance of social and emotional learning has become a mainstream tenet at the same time that technology advancements have reached the classroom. One such advancement, the flipped classroom, has turned the modern classroom upside down with significant results in academic and other achievements. This paper reviews the literature surrounding the flipped classroom and examines how the flipped classroom would be an appropriate vehicle for social and emotional learning, especially in the case of shy students. A review of the literature shows that social and emotional learning can be developed and enhanced by employing certain strategies. The literature also supports progress in shy students as their social and emotional skills are exercised. This paper discovered that several of the ideal interventions for promoting social and emotional learning, and thereby helping shy students, are also essential to the flipped classroom. In light of the relevant research this paper suggests that the flipped classroom would be an appropriate vehicle for social and emotional learning, especially as an intervention for the shy student.

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CHAPTER I: INTRODUCTION

It is inevitable that the classroom be transformed by technology as we speed through the first quarter of the 21st century. One significant change is the nearly universal access to online videos covering nearly every topic. Sites like Youtube have become veritable libraries of valuable information for every level of learning. Students can use videos, like those from Khan Academy, to learn an elementary multiplication algorithm and advanced processes of differentiating. Even established universities like MIT and UC Berkeley post public educational content to Youtube for interested viewers (Open Culture, 2008). In the process these videos have become a great resource for students who need a refresher on material they learned in class or maybe a different presentation that makes more sense to them or perhaps a step-by-step solution to a related example. Other videos might allow students to get excited about a cause or explore more of the content learned in school. Meanwhile, educators who hope to curate and harness this content mine have ventured into different ways to bring online videos into formal education. It is not uncommon for students to watch supplementary videos during class via smartboard. Some teachers even assign video content for personal viewing or make lists of recommendations for optional viewing.

One of the most recent uses of technology in the classroom is actually moving technology out of the classroom and using it as a tool to learn new content before class. Muir (2016) described it:

> Although enactments of the flipped learning approach varies in practice, typically direct instruction is moved from the classroom for students to access independently, usually

> through the use of videos. Class time can then be optimised with more targeted and individual instruction happening. (p.487)

The flipped classroom, then, is where teachers create or curate quality videos for students to watch before class so that they can spend class time in active learning. These videos are short, targeted, and interesting. They are designed to cover new material to a degree of adequate understanding, like the traditional classroom lecture. Students are able to pause, rewind, start and come back to the online videos and really learn the material at their own pace. Teachers can offer a short online quiz or an online discussion forum to support the assigned video. When students come to class, then, they have a working knowledge of the new content. This most valuable time of the learning process, namely scheduled and in the presence of an instructor and peers, can then be spent in active learning, which research has long affirmed as most conducive to student learning (Unal & Unal, 2017). And the extensive research on the results of flipped learning has concurred (Cetinkaya, 2017; McCollum, Fleming, Plotnikoff, & Skagen, 2017; Moran & Young, 2015; Sirakaya & Ozdemir, 2018; Sookoo & Boisselle, 2018; Unal & Unal, 2017). For the most part, students in the flipped classroom outperform their peers in a traditional setting. It seems that academic achievement, especially in the STEM content areas, is boosted when flipped learning is introduced.

Rationale

The Collaborative for Academic, Social, and Emotional Learning suggests that student success is multi-dimensional and much more complicated than a good report card. Its researchers maintain the importance of social and emotional learning (SEL) whereby students come to "understand and manage emotions, set and achieve goals, feel and show empathy for others,

establish and maintain positive relationships, and make responsible decisions" (Collaborative for Academic, Social, and Emotional Learning [CASEL], 2019). These are the sorts of skills that help individuals navigate and enter into and contribute to society. And these skills, like self-management and negotiation and responsible decision making, are best acquired and practiced in an active community setting. But the spread of technology has led to a decrease in organic community settings: students increasingly rely on text messaging to communicate instead of talking, social media use is tied up with loneliness and depression, and use of technology stunts students' capacity for empathy.

The question arises, then, how might the flipped classroom, which depends on and grew out of advancing technology, be an appropriate vehicle for social and emotional learning, which is essential for human growth and is set back by overuse of technology.

Tied up in this question is another concerning how the flipped classroom might work for the shy student in particular. Shy students experience feelings of wariness and hesitation in the face of novel situations. Imagine a math class when a new and difficult concept is introduced: students with strong social skills would advocate for themselves by asking a teacher or a friend for help, they would get the help needed, and they would continue their learning experience. But shy students act differently when confronted with such a situation: they feel flooded with shame and embarrassment at not understanding the new concept, they believe that others are judging them and feel self-conscious about appearing different or slower (Stowell, Oldham, & Bennett, 2010), they might not ask a clarifying question and instead just try to "figure it out later." This non-action puts shy students at risk for falling behind in class and getting trapped in their avoidant behavior. The flipped learning method seems ideal in addressing these disadvantages of

shy students. They are allowed to learn at their own pace, rewind and review material, ask questions out of the public eye, and come to class familiar with the content. This familiarity could put them at ease and make learning less stressful and more successful.

However, the flipped classroom may bring shy students out of the frying pan and into the fire. Generally, new material is not presented in a flipped class, but class time is designed to be active and usually includes cooperative learning, small groups, and collaborative problem solving. These learning methods are very effective, but their high social demands may put the shy learner at risk. Teachers consistently rate socially passive students as less intelligent and give them lower marks than their peers, especially in content areas that are highly social. Flipping the math or science classroom, historically classes where shyness is not such a liability, may take away any safety net shy students may have had academically.

On another level, too, we wonder what sort of effect a flipped classroom would have on shy students. Socially withdrawn students have the same desire for social connectedness as their non-shy peers, but lack the prosocial skills needed to achieve such relationships and are often rejected by their peers (Coplan, Prakash, O'Neil, & Armer, 2004; Rubin & Coplan, 2004). This rejection leads to isolation and internalization resulting in low self-esteem, loneliness, and anxiety. In an active learning setting it seems that prosocial skills, or lack thereof, are more visible and more valued, making shyness even more of a handicap. The long term effects of shyness are concerning and it's important to determine if the flipped learning model would exacerbate the social and emotional consequences of shyness, or somehow moderate them.

Thus it's important at this point in time to review the literature of the flipped classroom and see if it aligns with the literature surrounding SEL and shyness. This paper sets out to

explore how the ideal flipped classroom might be an appropriate vehicle for social and emotional learning especially as an intervention for shy children.

Definitions of Terms

Social and Emotional Learning (SEL): refers to the process of developing social and emotional competencies in children: a way to help people learn how to manage their personal, social, and cognitive behaviors (Sugishita & Dresser, 2019).

Shyness: an individual's feelings of hesitation and anxiety in the face of social novelty and perceived social-evaluation, characterized by an approach-avoidance conflict in such situations, (Coplan et al. 2004). Used interchangeably with social withdrawal and social passivity. Not the same as shyness in a culture. Not the same as social anxiety disorder.

SAFE: Acronym standing for sequenced, active, focused, and explicit, the four essential elements of an effective SEL program (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011).

Flipped Classroom: A classroom model where students are introduced to new content via a short video before class and then spend class time in active learning (Muir, 2016; McCollum et al., 2017; Unal & Unal, 2017).

Academic Reading Circles (ARC): Students prepare individual pre-class notes and then work together in class to further their understanding McCollum et, 2017).

Open-Response Multi-Attempt (ORMA) Group Quizzes: A collaborative assessment practice that allows groups to work together to solve open-ended questions, trying multiple times if needed (McCollum et al., 2017).

Professional Educator: A precise term for an ideal instructor in an ideally flipped classroom (Flipped Learning Network (FLN), 2014).

Statement of the Question

How would or would not the ideal flipped classroom be an appropriate vehicle for social and emotional learning especially as an intervention for shy children?

CHAPTER II: LITERATURE REVIEW

Social Emotional Learning

Sugishita and Dresser (2019) refer to social-emotional learning (SEL) as the process of developing social and emotional competencies in children: a way to help people learn how to manage their personal, social, and cognitive behaviors. It is so important that children have access to social-emotional learning because they are greatly affected by their emotions which are often the impetus for their actions (Karademir & Deveci, 2019).

Society expects that individuals will vary in their degrees of intelligence and in their abilities to adapt to life, act in certain ways, and in their success (Yuksel, Okan, Eminoglu, & Akca-Koca, 2019). And yet, "children's academic achievement (math results, literacy, classroom productivity) were found to be positively affected by emotion regulation skills" (Yuksel & al, 2019. p. 729). This phenomenon affirms that individuals who possess higher social-emotional skills will also enjoy greater academic success.

There are several competencies that SEL concerns itself with: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making skills (Sugushita & Dresser, 2019).

Self Awareness

Self-awareness is the ability a person has to correctly identify his emotions, beliefs, and values and how they impact his behavior. The self-aware person accurately perceives his strengths and weaknesses, while maintaining grounded self-confidence and healthy sense of self-efficacy and a growth mindset (Casel, 2019).

Self-efficacy is the set of beliefs you have about yourself and your abilities. These beliefs are strongly tied to behavior so that if a student believes he can accomplish a task he will often find that he can, and if his firm belief says that he can't, he won't. Low self-efficacy can hinder motivation and learning and accomplishments. Sookoo-Singh and Boisselle (2018) assert that motivation is an integral part of self-efficacy. This is because if students are motivated they will be more willing to take an active role in their own learning, they will try harder, and their academic achievement will be positively affected (Sookoo-Singh & Boisselle, 2018). Shih (2019) found that self-efficacy directly predicts the strength of the goal-setting process and the likelihood of it being carried out. In addition, the level of self-efficacy will also affect the degree of task engagement (Constantine, Fernald, & Courtney, 2019). Task engagement measures the vigor, dedication, and absorption of a student while working at a task. The more task engagement a student has the longer and deeper is his concentration at learning. Constantine et al. (2019) write that teachers bolster students' self-efficacy by making learning low-risk and by connecting new learning to previous concepts and accomplishments. The gains in self-efficacy lead, in turn, to better task engagement. High self-efficacy can ensure long term success. Yuksel et al. (2019) states that those with high self-efficacy and high levels of hope may be able to lead a more functional life as an adult and also reaffirms the research showing that students' self-efficacy beliefs increase and predict their academic success.

Growth mindset is the opposite of IQ mindset which holds that academic understanding is static and dependent on natural ability. Those who have a growth mindset believe that academic and other talents can be developed and enhanced through hard work and careful strategies and applying feedback from others. These people view failure as a process of learning

and not an end to an endeavor. Students that have a growth mindset are grittier than their peers and are less likely to quit when faced with obstacles in learning. A growth mindset can be facilitated in the classroom that is safe and secure, where students aren't working under the fear of failure (McClendon, Neugebauer, & King, 2017).

Self-management

Self-management is the "ability to develop, implement, and flexibly maintain planned behavior in order to achieve one's goals" (Lawrence & Saileella, 2019). A student that possesses self-management skills sets forth emotional and cognitive, meta-cognitive and environmental strategies for attaining a certain goal. Students with high levels of self-management skills, or self-regulation skills, are able to reorganize their learning strategies as goals or circumstances change. They can modify their study plan, revise their goals, and overcome feelings of abandoning their work or giving in to frustration (Shih, 2019).

Self-management is consistently tied to academic success. In fact, Karademir and Deveci (2019) say that making goals, forming effective plans, and having self-control is necessary to succeed in an academic field. And Shih (2019) reports that complex academic tasks are accomplished using self-regulatory strategies. Self-regulation skills, because they include understanding and applying strategies for self-development, are especially relevant for today's student who lives in a rapidly changing world (Lawrence & Saileella, 2019).

Self-management skills are not equal across the board. Karademir and Deveci (2019) performed a study that measured levels of self-regulation among 11-14 year olds. They found that girls performed significantly higher than boys with regards to self-regulation skills. Also, children whose parents were "open" and more democratic than authoritarian also enjoyed higher

levels of self-regulation. Interestingly enough, the researchers commented that higher self-regulation skills correlate not just to democratic parents but also to democratic attitudes of adults that surround a child.

Students can be taught self-management. Oppong, Shone, and Muis (2019) outline several classroom practices that enhance student self-management. They posit that it is helpful if learning activities are organized in ways that include specific times for evaluating progress, question understanding, and brainstorming ways forward. Also, Oppong et al. (2019) relate that it is critical that students feel especially comfortable among their peers, so self-management can be encouraged by planning learning activities that include social interactions, especially dialog. Teachers can act as facilitators at first, using role-play or self-help materials as scaffolding, until students have become adept at group discussions, collaborating with peers, and asking for help. The researchers assert that classroom tasks should be ability-appropriate yet challenging and novel while still understandable, so that positive emotions, like curiosity, are aroused. Finally, educators can teach self-management skills by inviting students to examine their own understanding of a topic, express their level of self-efficacy, and determine the overall value of the task. If these conditions could be encouraged and fostered perhaps more students would experience the great academic and personal benefits that follow on the heels of self-management (Oppong et al., 2019).

Social Awareness

Another category in social-emotional learning is social awareness. Sugushita and Dresser (2019) define social awareness as “interacting socially, ethically, and empathetically with people of differing perspectives, cultures, and backgrounds.” This includes interactions with those of

differing races, religions, and socioeconomic status. Social awareness is important as individuals learn how to "read" a person or a room and adapt their speech and behavior to the situation at hand.

Traditionally, schools have concerned themselves with academic knowledge and content alone, thereby producing individuals who have the advanced academic skills needed to further their careers, but are bereft of the necessary empathetic and pro-social skills needed to fit into society as a whole (Dar, 2016). It is important that classrooms support a student's social awareness so that he can apply his content knowledge in acceptable ways and continue to advance. But learning social awareness does not benefit just the individual. Social awareness and its access to ethics and empathy make society a safe and welcoming place.

Educators can encourage social awareness by using role play to model respectful, cooperative, helpful behaviors, and effective peer interactions (Sugishita & Dresser, 2019). Furthermore, Sugishita and Dresser (2019) give some practical guidelines for increasing students' social awareness skills. Their research suggests that structuring social awareness lessons into the curriculum, like opening the class with opportunities for students to interact with their peers while practicing specific social, communication, and listening skills, is beneficial for the students and more manageable for teachers than setting up a stand-alone social awareness curriculum. Not only do instances of social interactions promote cognitive performance, they also allow an individual to become more reflective about themselves and others (Oppong et al., 2019).

Relationship Skills

Relationship skills, yet another facet of social-emotional learning, are those skills that an individual can use to maintain relationships with diverse people: skills like negotiation, compromise, listening, and cooperating (CASEL, 2019). In fact, it is through discussion, negotiation, cooperation, and compromise that children develop mature ways of thinking about social and non-social things (Rubin & Coplan, 2004). These skills, namely understanding the thoughts and intentions and emotions of others as well as the consequences of their actions, are imperative for children. Those that are wanting in these relationship skills do not make good relationship partners and are not sought out as friends (Rubin & Coplan, 2004). What is more, Mcollum, Fleming, Plotnikoff, and Skagen (2017) found that a lack of peer-peer relationship skills carries over and signifies poor peer-expert relationship skills as well.

Oppong et al., (2019) found that students can be taught effective communication skills with peers by being patient and listening to each person's point of view. In fact, interacting with peers allows a child to gain experience in perspective taking and social information processing, which in turn can lead to more opportunities for social interaction and relationships (Rubin & Coplan, 2008). Van Velsar (2009) stated that these opportunities for interpersonal exchanges happen naturally in the classroom, but that counselors or educators could facilitate the interchanges, helping children navigate the interactions and negotiate through their differences. These real-world experiences are crucial to the development of relationship skills.

Responsible Decision Making

Responsible decision making entails making complicated choices while taking into account the ethics of a situation, far-reaching consequences, social norms and the well-being of oneself and others (Casel, 2019). Students that make responsible decisions are able to identify

their decisions and discuss various strategies that they would use to counter peer pressure. Responsible decision making involves being able to reflect on how present choices affect future options, pinpoint problems that may arise and come up with alternative actions. Students also are self-reflective and self-evaluative and make their decisions based on personal standards of morals and ethics (Yoder, 2014).

Teachers can model responsible decision making and also encourage it in other ways. Responsible decision making is taught by creating a more democratic classroom where students are allowed input in specific ways about the rules and the content and the teaching method and then held accountable for the choices that they make in the framework that they have helped to create. Students also learn better decision making skills by participating in peer tutoring, using their understanding of a topic or process to help others (Yoder, 2014).

Kids aren't born with these social emotional traits that help them get along in the world. When they are young, children have a very hard time managing their emotions or getting along with others. The set of social emotional skills need to be learned. Furthermore, these social emotional skills: developing positive relationships, being adaptable, taking responsibility for one's one decisions, and having hope is crucial, even positively affecting a person's success (Yuksel et al, 2019).

Conclusion

Ideally a child will begin his social emotional learning in the home as a small child. Early SEL learning sets him up for success. But all is not lost if a child does not have these resources at home. Schools have begun to help kids acquire social emotional skills. SEL in the classroom has been successful. Students who are instructed in SEL learn to understand themselves. They begin

to respect themselves and others. Children that are instructed in SEL at school behave better which can lead to friendships and "fitting in" where they didn't before. Research shows that there are several effective ways to teach social emotional learning. Explicit instruction is one way to introduce SEL in the classroom. In explicit instruction the teacher would explain SEL to the students to include its definition, the related skills, and specific instruction goals. Explicit instruction in the classroom does have its benefits and successes. Another way to realize social emotional learning is to provide the classroom with opportunities to practice SEL skills. There are many different ways that this happens. Practicing SEL skills helps students make huge gains on many different levels. Students that practice SEL skills become more social. These students that are practicing SEL skills have more friends and become better friends. The psychological effects of SEL in the classroom have also been noted. And students that improve in SEL skills find that they also improve academically (Yoder, 2014).

Shy Students

Now a certain set of students that are challenged in social and emotional learning is the shy student. Here belong those children who do not interact with others voluntarily (Rubin & Coplan, 2004). These children generally respond typically in familiar settings and are only inhibited in novel situations. This gives rise to the definition of shyness as an individual's feelings of hesitation and anxiety in the face of social novelty and perceived social-evaluation and it is characterized by an approach-avoidance conflict in such situations, meaning an individual that is shy may want to approach another or respond in a certain social situation, but his feelings of wariness prevent him from doing so (Coplan et al. 2004).

Rubin and Coplan (2004) point out that the phenomenon of children's shyness, or social withdrawal, has not long been the subject of research, but has recently become very much discussed among researchers and parents and teachers. They maintain that shyness is intrinsically tied up in social emotional learning because shyness, or social withdrawal, puts an individual at major risk for losing out on interactive experiences that are critical for developing social skills.

Shyness manifests itself in different ways. Younger children that are shy tend to act with fear or wariness when they meet new people or are put into new situations. Older children tend to express their shyness not as fear, but as embarrassment and self-consciousness when they perceive that they are being socially evaluated or judged (Coplan, Hughes, Bosacki, & Rose-Krasnor, 2011, quoting Crozier 2001). Interestingly, it seems that shy children do not conform significantly more than their non-shy counterparts, but they experience much more emotional distress surrounding their nonconformity (O'Connor, Capella, McCormick, & McGlowry, 2014).

There are academic repercussions for shy students. Teachers may interpret shy students as being less engaged, and therefore academically weaker, than their more social peers (Lao, Bosack, Akseer, & Coplan, 2013). Hughes and Coplan (2010) explored the processes linking shyness and academic achievement. They conducted their experiment using 125 participants, nearly equally split between boys and girls. The children were about 11 years old and were chosen from three public classrooms in Canada. The researchers had children complete the Children's Shyness Questionnaire which measures fearful and self-conscious shyness. This study also measured the students' nonverbal IQ and their academic achievement according to standardized math and reading tests. The results were surprising. It seemed that shyness as

reported by the students did not affect either their nonverbal IQ or their academic achievement. However, when researchers continued the study by asking teachers to respond to a 4-point Likert scale of the Behavioral Engagement Scale meant to measure students' class participation and academic engagement, the results confirmed the original hypothesis of the study: behavioral engagement plays a mediating role on the relation between shyness and academic achievement. Namely, the more a student participates in certain ways in the classroom, the higher a teacher perceives his or her ability and achievement, which in turn affects a student's grade (Hughes & Coplan, 2010). In fact, teachers consistently rate shy students as less competent than their non-shy peers even though shy students score as well as these same peers when assessed using standardized testing (Hughes & Coplan, 2010). Teachers (except shy teachers) rate shy students as significantly less intelligent than their peers, rate their vocabulary skills as poorer than their peers, and anticipate that shy students would have the most negative and social academic consequences and all these negative associations and perceptions may lead to a self-fulfilling prophecy where shy children "live down" to their teachers' expectations (Coplan et al., 2011).

The consequences of childhood shyness are not only academic. Findlay, Coplan, and Bowker (2009) relate that childhood shyness indicates other internalizing difficulties like anxiety and loneliness and lowered self-worth as well as social incompetence; these maladjustments continue to appear as the child ages, suggesting long-term negative consequences of childhood shyness. The researchers found that these negative outcomes for shy children may be partially due to shy children's internalizing coping strategies: leaving situations instead of confronting a problem directly or blaming themselves instead of asking others for help.

Shyness plays an important role in socialization and can have major repercussions on an individual's thoughts, feelings, and behaviors that carry over into adulthood (Lao et al., 2013). Rubin and Coplan (2004) summarize that withdrawn children are "socially deferent, anxious, lonely, and insecure in the company of peers, as well as rejected by peers. They fail to exhibit age-appropriate interpersonal problem solving skills and believe themselves to be deficient in social skills and social relationships" (p.25). Namely, the social and emotional skills that shy students lack are key in forging meaningful relationships, which in turn are necessary for attaining and maintaining mental and emotional health throughout their lives.

The research of Coplan and Armer (2005) suggests that gender is a significant factor in many different aspects of the experience of shyness, maybe because of cultural stigmas attached to proper gender behavior. In the mainstream U.S. society, it is more common and acceptable for girls to be reserved and unassuming, but the same behaviors are deemed "abnormal" for boys (Rubin & Coplan, 2004). In fact, shyness in boys, but not in girls, is positively related to peer rejection (Coplan et al., 2004). Shy boys are more likely to be socially withdrawn than shy girls, displaying solitary-passive behaviors like playing alone while peers are quietly exploring or constructing together. These socially withdrawn behaviors, in turn, lead to more adjustment difficulties for boys than girls (Coplan & Armer, 2005).

Overcoming Shyness

With so many academic and social repercussions of shyness it is natural to wonder if shyness in an individual can be alleviated or even overcome completely. Lao et al. (2013) pointed to the internet, specifically to the website www.shyandfree.com and the myriad of self-help books and online forums and personal testimonies of overcoming shyness as a certain

indication that individuals can have experiences that allow them to outgrow their shyness. Various studies have been carried out to discover a learning environment or system that helps shy students reach their potential. Coplan and Armer (2005) found that increased vocabulary skills could possibly help shy children better navigate social interactions. They assert that since better language skills are associated with assertiveness, shy children, who generally have poor approach skills, may experience greater confidence in peer interaction as their language skills improve. This confidence and increase in positive feelings about oneself would promote social performance even more. In short, improvement in language skills does not directly reduce social anxiety, but it may help shy children to interact socially despite their anxieties, boosting their social confidence, and promoting positive coping strategies whereby they can avoid becoming socially withdrawn (Coplan & Armer, 2005)

Findlay et al., (2009) suggest that since some negative outcomes of shyness, like anxiety and loneliness, can be partially attributed to internalizing coping strategies, teaching shy children alternative coping strategies may alleviate these internalizing outcomes. Shy children that are taught and encouraged to use other coping mechanisms, like problem solving strategies instead of self-blame or avoidance, may become less prone to negative internalizing outcomes.

Paulsen and Bru (2008) address the issue of the modern classroom changing and being reinvented, with more emphasis placed on active learning where students are challenged to use their knowledge to collaborate with peers, initiate and partake in class discussions, and publicly display their academic achievement and understanding. This active learning seems very effective, but it may be less effective and even detrimental to the shy student. Paulsen and Bru investigated two secondary schools in Norway. They set out to determine if being socially

passive led students to lower academic achievements in subjects that were more socially demanding. They assumed that mathematics, being a subject with high teacher familiarity, low demands for peer collaboration, and low demands for public displays of academic learning would have only a weak association with the social passivity of students.Paulsen and Bru (2008) conducted their research using 501 students from two public secondary schools in the southern part of Norway. The students' social passivity was scored and then students self-reported their grades (scaled 1-6) in eight different subjects that the researchers had levelled according to the demands for social activity.

The results of Paulsen and Bru's (2008) study showed clearly that in subjects deemed to have a higher demand for peer collaboration and public displays of learning, especially if they had a low rate of teacher familiarity, the socially passive student scored consistently and significantly lower than their more socially active peers. In mathematics, the least socially demanding subject and one with high teacher familiarity, social passive students were at no disadvantage compared to their socially active peers. The authors make some important suggestions for the modern classroom based on the conclusions of their study. As classrooms are made more interactive and more socially demanding, "it is likely that these pupils would benefit from more opportunities to work alone or in small groups for adequate amounts of time when learning new and difficult content" (Paulsen & Bru, 2008, p. 260-261) Furthermore:

> For the subjects in which teachers have to relate to a high number of pupils, it may be helpful to ensure that teachers who know the pupils pass on information about the pupils and the unfamiliar teachers ensure they make time to establish supportive relations to these pupils thereby familiarizing themselves with them. (Paulsen & Bru, 2008, p. 261)

Finally, the classroom must be welcoming and conducive to participation, especially in ways that make social initiatives less threatening and required public displays of knowledge more predictable and familiar. These ways of organizing the classroom as a safer and more comfortable space for socially passive learners can result in positive social experiences which may lead to more socially active behaviors and more success in their academic life and beyond. (Paulsen & Bru, 2008).

The results and discussion from this report were affirmed and strengthened by a 2011 report from Coplan et al. that showed teachers prefer to employ peer-focused strategies instead of high-powered strategies when dealing with shy behavior. The researchers say that this is promising news since involving class mates and increasing social interactions appear effective in improving outcomes for shy children. Shy children often withdraw from or avoid social interaction and so miss out on the benefits of peer interaction, so teacher strategies that focus on improving the quantity and quality of social interactions may be effective (Coplan et al., 2011).

Technology can also have a place in alleviating shyness, or at least minimizing some of the emotional distress that shy students experience. O'Connor et al, (2014) performed a study on the effect of bringing clickers into a classroom. The clickers were small hand-held electronic devices that gave students an anonymous way to answer the teacher's questions during class. The researchers hypothesized that use of clickers would lead to less conformity in students' answers to controversial questions than would traditional hand-raising and they were correct. The use of clickers led to less conformity in students' answers across the board. What was surprising was that shy students were not conforming at a greater rate than their non-shy peers. They still preferred the use of clickers more than their non-shy peers did, but indicated that it was because

the anonymity provided by the clickers made their non-conformity less painful for them (O'Connor et al., 2014).

Hughes and Coplan (2010) are quite direct in their suggestion for changing the academic outcomes of shy students. They say that it is important that teachers educate themselves and confront their own biases when dealing with shy students since it is their own perception of shyness that is producing lower academic achievement and perhaps more sinister outcomes for shy students. The researchers also present the idea of directly teaching students the skills of academic engagement so as to close the gap of academic achievement.

SEL Interventions

Because the effects of social emotional learning are so far-reaching and consequential, many schools, educators, researchers, and even government entities have sought a solution. The Report of the Surgeon General's Conference on Children's Mental Health declared that fostering social and emotional health in children was critical to children's mental health and must be a national priority, while the Illinois State Board of Education has written SEL skills into their state learning standards, and Singapore has made efforts to establish and implement SEL standards (Durlak et al., 2011). These efforts at active promotion of social emotional skills like competence, self-esteem, mastery, and social inclusion, are a sign of the gains made in the research about teaching SEL skills. It is now understood that mental health promotion "can serve as a foundation for prevention and treatment of mental, emotional, and behavioral disorders (Durlak et al., 2011). As research continues to indicate that social emotional learning can be taught and enhanced, it is natural to look for the best vehicle for SEL interventions.

Small Groups

The small group setting is often organic in everyday living. Children are born into families, the first small group, they form small groups in peer friendships, and may continue to work and socialize with colleagues in small group settings. In fact, it is often the quality of these naturally occurring small groups that set a child toward either prosocial or antisocial behavior (Van Velsor, 2009). Because the small group is so prevalent it makes sense that counselors would choose to use this setting to help at-risk children improve their social skills. In fact, for some time counselors have pulled certain students from the classroom and created small groups for them to learn appropriate skills, unlearn negative behavior and hone new skills in a safe environment. A further application of the small group is the task group, where children are asked to accomplish a task together while learning and practicing acceptable social behaviors. A typical task group might operate so that each member is accountable for his own contribution to the outcome, but Van Velsor (2009) describes the ideal task group for SEL as one that operates more like a team. This means that the task group would still focus on goals and even encourage individual results, but it would be interdependent and collaborative, with shared leadership and responsibilities and accountability.

In addition, Van Velsor (2009) identifies the task group in a school classroom as the ideal setting for social emotional learning. One of the main benefits of a task group in the classroom is that students are allowed to learn social and emotional skills *in vivo.* These real-world applications create an opportunity for spontaneous interpersonal communication with peers and educators. Students might find that they have differing ideas and may encounter issues related to completing the task at hand. These organic situations are ripe for an educator to “help children manage their emotions, effectively navigate their interactions, and successfully negotiate their

differences for optimal SEL." (Van Velsor, 2009, p. 279). The task group in the school setting has many advantages for at-risk students. They have increased opportunities to practice their social and emotional abilities, they are not inadvertently learning inappropriate behaviors from a group made up of uniformly skilled students, and can informally learn prosocial behaviors that are modelled by students at higher skill levels (Van Velsor, 2009). It is shy children, in particular, who often miss out on the positive effects of peer interaction, so this focus on improving the quantity and quality of social interactions may be especially helpful in the social and emotional development of shy children (Coplan et al., 2011). On the other hand, the task group model also benefits students who are not targeted for SEL difficulties. In fact,

> when considering the task group in the school setting, it makes sense that students could benefit in three ways. First, the task group affords children the opportunity to learn about a topic as they work together on a project of educational importance. Second, students have the chance to acquire valuable social and emotional skills for working in groups related to cooperation, collaboration, and mutual respect. Third, students may well gain a sense of accomplishment when the task is completed, hopefully bolstering self-esteem. (Van Velsor, 2009, p. 277)

The social and emotional advantages that come along with the task group in the classroom setting are not spontaneous, but must be intentionally facilitated. The task group must become a cohesive and a supportive team in order for children to build and strengthen peer relationships and even to complete the task and access learning. Educators need to focus on learning activities that build interdependent relationships and also identify prosocial skills. An effective task group will carve out time for learning about one another, craft a group culture, and

appreciate collaboration and cooperation (Van Velsor, 2009). Prosocial values, like respect and promotion of other's efforts, are discussed and encouraged in intentional team-building.

There are several aspects of social emotional learning that are touched upon and improved through the task group in the classroom model. Skill in giving feedback is an important part of behaving appropriately in various groups and it sets the stage for other prosocial skills. High quality feedback, direct and honest personal reaction, generates positive and productive responses like exploration and curiosity and change, while other forms of criticism like interpretation or confrontation leads to resistance or agreement.

> The challenge in the task group lies in helping children learn to give constructive feedback (i.e., direct and honest personal reaction) that supports task completion. This begins with counselor modeling; simply by listening, paraphrasing, asking open questions, that is, using basic counseling skills, counselors provide a positive example for children and promote SEL. In using these skills, it is important that counselors attend to the age of the children in the group to adapt those skills appropriately. If children learn these skills, they help to create a safe environment and set the stage for giving constructive feedback to each other related to task completion. (Van Velsor, 2009, p.285).

Van Velsor (2009) noted that task groups in the school setting also provide students with opportunities to attain and practice good decision making skills. Making good decisions often depends on the good processing of emotions that accompany difficult situations or differing opinions. The educator that is guiding a task group should help students monitor their emotions and apply self-control in peer communication, so that they can make clear-headed decisions.

Problem-solving is another social emotional skill that can be honed in the task group. Problem solving should be modeled by the educator and then facilitated, maybe using a four step process where children describe their wants and feelings, listen to and describe the wants and feelings of others in the group, come up with three viable plans, and choose one of the plans (Van Velsor, 2009).

> Conflict will arise in any task group, even those that are highly effective. And such controversies offer, perhaps, the most valuable opportunities for SEL. When students are involved in a passionate discussion that appears to have the potential for escalation, the counselor must decide when, and if, to step in and what intervention might facilitate optimal SEL. Early in a disagreement, the counselor may ask students to listen to each other and then verbalize the opposing perspective, promoting student empathy and sensitivity to others (SEL social awareness competency). If emotions are already heightened, the counselor may direct the students to self-monitor and share their feelings related to the interaction before tackling a problem solving procedure. This helps students to accurately assess their feelings (SEL self-awareness competency) and to regulate their emotions (SEL self-management competency). (Van Velsor, 2009, p. 287)

The task group in the school setting is an excellent way to promote and enhance social emotional learning for students. Another vehicle for imparting social emotional skills is the use of games in the classroom.

Games

Hromek and Roffey (2009) "argue that games are a powerful way of developing social and emotional learning in young people… the social and emotional skills needed to play

successfully with others are those needed to succeed at work and in adult life." (p. 626). Prosocial skills that are exercised in games include regulating emotions, taking turns and sharing, and being fair and respectful to others. Take into account the natural affinity children have for play, especially with others, and games become an ideal way to impart social emotional learning.

In the context of SEL, classroom games are a form of cooperative, experience-based learning. They have a set of rules that players agree to follow in their play and can be designed to teach lessons that vary from the academic to the interpersonal. Hromek and Roffey (2009) evaluated the use of Circle Time, a whole-class game where students are brought into a circle and asked to share answers or problem solve. Students agreed to base their interactions on democracy, inclusion, respect, and safety; they did not talk during another's turn, they were allowed the option to "pass," and did not shame or blame others. Students might toss a ball of yarn from person to person to make an interconnected web while answering the question. Or they might turn to their neighbor and explore similarities in a given prompt. A well-facilitated Circle Time gave teachers the chance to talk about the connection between feelings, rights, and responsibilities and it also made a path forward for students to address other issues. Students were very enthusiastic about the Circle Time and teachers reported that it changed the way students related to each other, in and out of the game time (Hromek & Roffey, 2009).

Another way that Hromek and Roffey (2009) introduced SEL geared games was with the use of therapeutic board games. Unlike Circle Time, the therapeutic board games were used to teach kids targeted for extra practice in prosocial behavior. These games would present social dilemmas, like teasing or friendships or sportsmanship, where students could "experiment" with different observations, behaviors, and new strategies in a safe environment. These board games,

sometimes played with a competent peer or facilitated by a trained educator, teach skills and strategies and emotional regulation at several levels. They are beneficial at the targeted level, but also to support social emotional learning in the classroom (Hromek & Roffey, 2009).

It is important to note that the Hromek and Roffey (2009) thought that the educator or facilitator of classroom games designed for social emotional learning ought to be trained in correct behavior and responses for optimum results. They mention that even the question, "Who shall go first?" creates space for reflection, argument, self-promotion, negotiation, and empathy among the students, instead of a command: "You go first," which leaves no room for social learning or growth.

In the end, Hromek and Roffey (2009) found that children are captivated by games that balance hope and skill and strategy and luck and fun, and every face-to-face game becomes an opportunity for children to practice self-regulation and prosocial behaviors to play well with others. In fact, interactional games are all great for relaying social emotional learning, but especially the ones that have been designed with SEL as an intentional outcome. These games include aspects of discussion, role-play, and problem solving in the playing. As children repeatedly put these skills to use and interact with others in a contrived environment, they become more adept and more comfortable with interacting with others in an organic setting. The games have allowed them to learn to manage their emotions, delay gratification, and play collaboratively and cooperatively (Hromek & Raffey, 2009).

Along the same vein of games as a vehicle for social and emotional learning is the growing theory of play and gaming. Resnick, author of Lifelong Kindergarten, explains that just as kindergarteners learn theory and concepts through manipulatives as they build and handle and

play with physical objects like balls and blocks and rods, so too would a person of any age learn through digital manipulatives. Play with physical objects develops a framework for thinking about the abstract. And embedding traditional children's toys (like blocks and beads and balls) with computational capabilities expands the reach of that framework, lowers the age of access, and raises the age for playful learning (Resnick, 1998)

In his 1998 exposition of emerging digital manipulatives at the MIT Media Lab, Resnick states that the "research on digital manipulatives is guided by three underlying principles: 1. Encourage design projects 2. Leverage new media 3. Facilitate personal connections." (p. 44)

Encouraging design projects is really about embracing a constructivist pedagogy, namely recognising that students learn from experiences and that they make knowledge when they make personally meaningful products. Design projects are particularly valuable because they make room for self-awareness and social awareness:

> "students design and create external artifacts that they can share and discuss with others…. Design activities provide a context for reflection. A child's constructions serve as external shadows of the child's internal mental models-providing an opportunity for children to reflect on (and then revise and extend) their internal models of the world. Design activities encourage children to put themselves in the minds of others, since they need to think through how other people will understand and use their constructions." (p.44)

It is important to note, however, that digital manipulatives and play and gaming theory is not about using technology to mimic traditional classroom teaching strategies. Resnick (1998) emphasizes again and again that digital manipulatives create learning through using them in an

entirely new and intrinsic way, through leveraging new media. Thinking Tags is one example. Thinking Tags are basically name tags with built-in electronics that can communicate with each other and change their displays based on those communications. High schoolers used Thinking Tags to simulate the spread of a virus among infected and immune students. The simulation resulted in developing theories of a latency period, susceptibility, and differing sets of interactions. Students analyzed the electronic reactions and explored and experimented with programming different paths that the virus could take. The role playing provided not only a platform to discover more about systems concepts, but also encouraged "collaborative theory building, in which groups of students work together to develop and test new theories." (p. 53)

Gaming theorists, Squire, DeVane, and Durga (2008), concur that the academic and SEL benefits of gaming are accessible when their learning principles are mined, not mimicked. The 2008 paper followed the effects of a yearlong study on game-based learning outside of school. Students were able to participate outside of school time in a historical simulation game with a gaming community of peers and adults. They played Civilization III, a video game that allows players to explore several early civilizations and manipulate natural and military resources as they learn about geographical and historical concepts. The video game was not aligned with a current social studies unit, but every participant in the study saw a dramatic increase in their grades and the three students who were involved the entire year bumped their social studies grade to an A. It was found that this manufactured "center of expertise" increased the academic language of participants, built cognitive apprenticeships with facilitating adults, and increased motivation and interest and self-efficacy (Squire et al., 2008). Also, these students, all of whom came from disadvantaged backgrounds and communities, created identities for themselves

outside of school that intimated an increased sense of worth and competence (Squire et al., 2008).

Technology

Technology has also been found to enhance students' social and emotional learning. Lehenbauer, M., Kothgassner, O. D., Kryspin-Exner, I., and Stetina, (2013) mused that shy students are dealing with a double-edged sword. They have fewer social skills than their non-shy counterparts and the social skills that they have are not accessible to them under stressful conditions. They recognized that therapists have successfully treated shy people using social skills training (SST) and cognitive behavioral therapy (CBT) in face-to-face therapy. But they also noticed that the very population that needs these interventions are most reluctant to initiate them. In response to these needs, the researchers designed a pilot study, creating an online self-administered training for shy students using SST and CBT.

The researchers took volunteers from psych students at a university and had them complete questionnaires (LSAS and SPIN) that measured their initial degree of shyness. Then students were split into a control group (no intervention) and an intervention group (14 weeks of online classes that made use of SST and CBT). After the program was completed all the students took post-tests to measure any change in shyness and social anxiety. The results were clear and very significant. Many students who had participated in the intervention group were no longer classified as having social phobia and in 6 out of 10 categories other students in the intervention group indicated much more favorable statements about themselves. The research confirmed what the authors had hypothesized, that shy students would benefit more from an online program that trained them in social skills than no intervention at all (Lehenbauer et al., 2013). The researchers

concluded that their study was important to the teaching community because it proved a way that teachers could have a very large effect on their students' development with little or no extra pressure on their workload.

Safe

There are several practices that encourage and enhance social emotional learning in the classroom, as shown above. Durlak et al. (2011) investigated further and reviewed the data of 213 schools' SEL programs. They determined that such schools had the greatest effect when their programs had four essential elements represented by the acronym SAFE: sequenced, active, focused, and explicit. A sequenced program uses connected and coordinated sets of activities to further the development of targeted skills. The active program is one where youth learn new skills through active forms of learning. The effective social emotional learning program emphasizes, or is focused on, the development of social or personal skills. And, finally, the SEL program ought to be explicit and target specific SEL skills, not just any positive skills or development (Durlak et al., 2011). The schools that implemented well designed and well conducted SAFE programs saw significant positive effects on desired social and emotional skills and attitudes about self, others, and school; students showed more prosocial behaviors, fewer internalizing and behavior problems, and increased academic achievement.

The Flipped Classroom

The most valuable times in the conventional classroom are spent in "an entirely passive and unidirectional learning process," as an educator conveys theoretical information to students (Cetinkaya, 2017, p.35). This traditional classroom is set up in such a way that students come to class like blank slates. The new ideas and concepts are presented, usually by lecture, to the

students for the first time in the classroom and then the students are sent home to practice and analyze and synthesize the new material alone. The amount of time needed to convey the new information means that there is only a limited amount of time left for cooperative learning activities in the classroom, even though research that these sort of activities are most conducive to student learning (Cetinkaya, 2017).

Unal and Unal (2017) describe the flipped classroom as a place where teachers produce or curate a short online video for their student to access and watch before class. The videos may or may not include a work-along sheet or provide guiding questions or a concept map or an online discussion to help the students focus on the relevant material. Then, during class, students work on applying the knowledge that they have acquired and work through higher-level tasks together with the teacher's guidance. These tasks might include individual and/or group activities like polling, problem solving, think-pair-share, role-play, peer editing, and group discussion. Unal and Unal (2017) make it clear that the flipped classroom is not just the traditional classroom, flipped. They emphasize that when working to understand the flipped classroom it is essential to include the role of modern technology to create and access quality pre-class videos, and the intentional use of collaborative learning and activities in the classroom.

The pre-class activities of a flipped classroom are generally uniform. Unal and Unal (2017) assert that the most common pre-class activities in the flipped classroom are watching the short educational videos provided by the instructor, as well as working through online exercises like note-taking or quizzes. Students might also be asked to read from a textbook or teacher's notes or take part in an online discussion. The design of appropriate pre-class instruction is very important and cannot be overlooked. Cetinkaya (2017) performed a study that compared two

groups of a seventh grade flipped classroom. The control group watched instructional videos before class, while the experimental group watched the same videos and also worked through web-based activities like interactive concept maps, word associations, and structured grids. He found that students who had access to specially designed pre-class e-learning tools scored significantly higher on the post-unit tests than did their peers that did not have access to these tools.

As for in-class activities in the flipped classroom, Unal and Unal (2017) give a very specific outline. Teachers usually begin class with a short lecture or review of the content that students accessed independently so that clarifications can be made, misunderstandings cleared, and some recall established. Then the bulk of the class time is spent in group learning activities. Here students are expected to apply the knowledge learned from the videos by working out advanced problems with the help of their teacher or peers, working on projects, doing presentations, taking quizzes, or practicing alone. (Unal & Unal, 2017). Cetinkaya (2017) says that an ideal flipped classroom would use their class time in various techniques like research-based learning, peer learning, and cooperative learning. McCollum et al. (2017) note that prominent features of the flipped classroom method include academic reading circles (ARCs), open-response multi-attempt (ORMA) group quizzes, and in-class peer leaders. An ARC gives learners a regular opportunity for small group discussion during class time. The students use their individual, pre-class notes to identify major ideas and themes and then work collaboratively to create meaningful connections between concepts, explore new vocabulary, and create visual representations of the content. These conversations may be facilitated by peer leaders or the educator, but are mainly independent (McCollum et al., 2017).

The ORMA group quizzes are a type of collaborative assessment. Groups are allowed to work together to answer open-ended questions and can try several times for the correct answer, receiving immediate feedback and the possibility of partial credit (McCollum et al., 2017).

In-class peer leaders can also be utilized in the flipped classroom. Peer-led team-learning (PLTL) trains students that have demonstrated fluency in a subject or unit as leaders in small group settings. They might integrate into small groups of students, ask or answer questions, engage in problem-solving, and take part in discussions of class content. They have been trained to act unobtrusively as guides in learning and not as instructors (McCollum et al., 2017).

Finally, the flipped classroom does not usually include after-class activities, but some teachers ask their students to complete a self-evaluation or a reflection after class (Unal & Unal, 2017).

Academic Outcomes in the Flipped Classroom

Research shows that flipped classrooms increase student achievement in many content areas, but especially in the STEM categories and other subjects or units where there is a strong memorization component (Moran & Young, 2015). Sirakaya and Ozdemir (2018) followed 66 students in a study that measured, among other things, the academic achievement in a “Scientific Research Methods” class. Students were separated into an experimental group that proceeded to learn in a flipped classroom and a control group that remained in a more traditional blended learning classroom. At the end of the term it was found that students who had participated in the flipped classroom had scores that were significantly higher than the scores of the other students. The researchers opined that these results might be due to the fact that in a flipped classroom model students learn the theoretical aspects of the new material before class and then can ask

additional questions in the classroom and receive immediate feedback. It is the nature of the flipped classroom that students come to class prepared and also have increased time to interact with the teacher, which, in turn, has a positive effect on academic achievement (Sirikaya & Ozdemir, 2018).

On the other hand, there are a number of studies that show no significant academic achievement in flipping the classroom. Some experts believe that this is because the flipped model perpetuates the formal lecture, just moving it to an out of classroom video. In fact, research is showing that the flipped classroom model may not be ideal for courses that lean on discussions or performance or writing (Moran & Young, 2015).

Cabi's (2018) study is one that did not find a significant increase in academic achievement. She designed a Computer I class as a control group and a flipped group for four weeks in a blended learning situation. The flipped group were asked to watch various videos before class and their understanding assessed at the beginning of class which was then spent working in groups on a presentation. The control group was presented with the same content via teacher lecture during class, their understanding assessed at the end of class, and they worked on presentations independently outside of class. Cabi (2018) administered pretests and posttests and found no significant difference in student academic achievement between the two groups, although the flipped group actually exhibited a decrease in their mean score from pretest to posttest while the traditional group saw an increase in their mean score.

Sookoo and Boisselle's study (2018) is another that did not reproduce academic achievement in the flipped classroom. Interestingly enough, though, they did find other benefits of the flipped classroom. Students in flipped classrooms enjoy an increase in feelings of

competence and autonomy and relatedness. These feelings translate to a place of intrinsic and extrinsic motivation in their learning. The flipped classroom also sees an increase in teacher-student interaction. This is a positive thing.

The academic benefits of the flipped classroom are, for the most part, widely documented and established (Cetinkaya, 2017; McCollum et al., 2017; Moran & Young, 2015; Sirakaya & Ozdemir, 2018; Unal & Unal, 2017).. The few dissenting studies are still relevant for this study, though, and lead to the examination of other, non-academic benefits that arise in the well-implemented and well-designed flipped classroom. It is precisely these other benefits that are of interest here and will create the intersection of flipped learning and social and emotional learning that was set out as the point of investigation.

Self-Awareness and Self-Management in the Flipped Classroom

MCollum et al. (2017) investigated this variability of success in flipped classrooms. His research team created a study of two flipped chemistry classes, hoping to assess how academic reading circles (ARCs) and open-response multi-attempt (ORMA) group quizzes impact student reading habits and perceptions of the flipped classroom.

The ORMA quizzes lent itself to social and emotional learning. One student struggled early in the class, but then improved. He said the reason he did poorly at first was:

> It was just me and one of my friends. And he slacked off a bit and I (breath). It just went downhill from there. But overall, had we put in the same effort that we did on the first group test, we probably would have got a better mark. ... it shouldn't be hard, as long as you know, as long as you do your readings and your assignments. (McCollum et al., 2017, p.8).

The same student turned his performance around by attending office hours, doing the assigned readings, and even became a leader among his peers in the class. This points to the feedback loop provided by the ARCs and ORMA group quizzes creating self-awareness and leading to self-regulatory behavior (McCollum et al., 2017).

In fact, students reflected that group work in the flipped classroom, especially in the form of ORMA group quizzes made them want to contribute to the team, support their peers, and show appreciation for help received (McCollum et al., 2017). Apparently working in small groups led students to greater motivation, a key component in self-regulation. The flipped classroom model also improves the self-regulation of students in another way. Students in a flipped classroom understand that they are responsible for more of their learning than in a traditional classroom and so they are more proactive about organizing their materials and managing their time. The flipped classroom model makes it more likely for students to receive immediate feedback and personal instructions from their instructors so that they are more aware of when they need external assistance in understanding a topic or completing a project and they are more capable of identifying an individual and method that can help them (Jdaitawi, 2018).

Students in the flipped classroom are also able to learn the material at their own pace outside of class and use class time to further explore or clarify their understanding with educator facilitation. In fact, Muir (2016) reflects that this self-paced learning is the ultimate aim of the flipped classroom. Students that prepare their lessons outside the classroom at their own pace are more motivated and feel more secure in the classroom (Sirakaya, 2018). The flipped classroom uniquely lends itself to self-paced learning. Self-paced learning has a significantly high correlation to academic achievement (Sookoo & Boisselle, 2018).

Furthermore, the flipped classroom puts students in a more active role in acquiring their knowledge and set teachers up more as counselors to guide students in their learning (Sirakaya & Ozdemir, 2018). Patton (2015) calls the traditional teacher an authoritarian ruler in the classroom who pours information into passive students. She posits that the ideal educator is one who transforms the learner into a capable individual that can function in society. This transformational leader is sensitive to the learner as a whole human being and focuses more on the student than on the educator or content. The ideal educator is a facilitator who allow students to set and meet long-term goals and stimulate critical thinking. Patton (2015) describes the flipped classroom as one strategy in effecting active learning under a facilitator instead of an authoritarian. In fact, Patton's facilitator hearkens to the idea of the professional educator, described by the Flipped Learning Network (2014) as one of the pillars of the flipped classroom. The professional educator is one who continually and actively observes the students, providing them relevant and immediate feedback and assessing their work. Professional educators are reflective, revise their instruction in connection with other colleagues, tolerate controlled chaos in their classroom, and design content to encourage higher order thinking. Professional educators do not take prominent roles in the classroom, but it is their presence and moderation that enables flipped learning to occur (FLN, 2014). These democratic and open attitudes of proximate adults boost the development of better self-management skills (Karademir & Deveci, 2019).

Social Awareness in the Flipped Classroom

Girmen and Kaya (2018) described how to create a flipped classroom that used digital stories and game based activities to develop the language skills of fourth graders. They found that students had very positive feelings about such a flipped classroom. The children said that

they had fun and that the games had helped them learn the material quickly and easily. They also said that the games had encouraged them to work together collaboratively in certain challenges, taking everyone's opinion before making decisions: "Everybody shared what they thought, explained their reasons and we tried to find the right answer, at the end we shared our decision (Germin & Kaya, 2015, p. 566). The researchers concluded that the flipped classroom benefits from digital stories and games because they increased content knowledge and academic success while encouraging student participation, attention, and motivation, and developing students' social skills and relationships. These activities also supported immediate feedback in the classroom and individual students coming together out of class. The digital stories and games-based activities also made classroom management easier for the teacher (Germin & Kaya, 2015).

Relationship Skills in the Flipped Classroom

While coding their results of a study based on two flipped chemistry classes, McCollum et al. (2017) found an unexpectedly strong theme of relationships, categorized as peer-peer, peer-peer leader, and peer-expert (McCollum et al., 2017).

The students in McCollum et al.'s (2017) experimental group had been asked to pre-read text, take notes on it, and then participate in academic reading circles (ARC's) that were organized according to complementary personality traits. The ARCs had access to a peer-leader, one of two former chemistry students who had been trained in peer-led learning. These peer-leaders went from group to group over several class periods. The ARCs were also assessed using ORMA group unit quizzes. McCollum et al. (2017) found that flipped learning relies on strong peer-peer relationships and that peer-peer relationships are also a key benefit of the

flipped classroom. They also determined that ARCs and ORMA group quizzes support those peer-peer relationships. One student explained:

> I like it. It's easier to get to know people in the class… Whereas in other classes I'm not going to go and make friends 'cause I'm just going to sit there and wait to see if anybody else will come talk to me. (p.6).

Initial face-to-face encounters are uncomfortable for many and thus they are often avoided by isolating oneself through the use of electronic devices. This leads to a scarcity of relationships. In fact, one student responded:

> This is the only class where I talk to people. I'm a pretty shy person, but the reading groups help me to interact with my peers. I also get different perspectives on ideas, and that helps a lot. Without the academic reading circles I would not have made friends. We often consult with one another out of class to discuss our readings and assignments. This is a big class, but it never feels that way. (McCollum et al., 2017. p.6).

Researchers were creating small groups to increase students' academic achievement, and these orchestrated, academic circles were creating social and emotional relationships. One student commented:

> I liked how we could have discussions with other people in the academic reading circles … we could ask specific questions we might have. … I liked how starting off you made your group, and then you kind of knew a few people from the [class] right off. And then you could always talk to them. Everyone knew each other by the end and kind of made friends (McCollum et al., 2017).

This student pointed to the ARC as the specific factor in facilitating peer-peer relationships. Meanwhile students in the traditional learning, control group related that they felt their classroom was large and unhelpful and their learning depended directly on their instructor's guidance (McCollum et al., 2017). Students in the flipped chemistry class noted that developing relationships were strengthened by the ORMA group unit quizzes.

One of the most interesting findings of this study is that the peer-peer relationships in the flipped classroom served to move the scores of the lower quartile of students closer to the average, meaning that these relationships support the academically weakest students without disadvantaging any other quartile. (McCollum et al., 2017).

Jdaitawi (2019) reached similar conclusions about the positive effect that flipped classrooms had on peer-peer relationships. He found that flipped classroom students had a higher degree of social connectedness than did their peers in the traditional classroom. This difference is due to the nature of the flipped classroom, where students' curiosity is piqued before class and then they have the chance to work collaboratively in class and receive accurate feedback from their peers. These opportunities give them more confidence to engage with others in the classroom and they develop better communication skills and become more comfortable in a large social circle. The flipped classroom boosts sense of self, empathy, and positive social interaction (Jdaitawi, 2019).

Decision Making Skills in the Flipped Classroom

It seems that not only did ARCs promote peer-peer relationships, they were actually necessary to the success of problem-solving sessions. When they were done away with, one student described the group work as: "I feel like with the activities, with the people I work

usually around, we usually do it on our own. And then if we have questions we're like "what did you get?" "Did you do this right?" "Did you have the same answer?" And if we do, if we all agree, then we move on (McCollum et al., 2017, p.7)." This description is not ideal for group work. It describes working alone and then checking the answer against a peer. Researchers found that this was probably due to a lack of preparation: students were not doing the pre-reading and were embarrassed to show their lack of knowledge to the group, so worked alone. When the ARC groups were reformed, students were motivated to do the readings again and the problem solving groups became talkative and collaborative. Here again the use of ARCs in the flipped classroom addressed the social emotional development of students, increasing motivation and reducing anxiety (McCollum et al., 2017).

Shy Students in the Flipped Classroom

Also, the flipped classroom that utilizes an online forum gives shy students a space to engage in class activities, make mistakes, and ask questions in a way that feels more safe and less embarrassing than the traditional classroom (Zainuddin & Attaran, 2016). In the actual classroom shyer students find that they can approach their teacher with a question away from the eyes of the whole group and may find that the instructor comes to them if they are observed as having difficulties (Seaton, King, & Sandison, 2014). In the limited research that exists, shy students reported being very satisfied in the flipped classroom (Zainuddin & Attaran, 2016).

Conclusion

These pages have set out, then, a summary of the research surrounding the intersections of social and emotional learning, shyness, and the flipped classroom. Social and emotional learning refers to the process of developing social and emotional competencies in children

(Sugishita & Dresser, 2019) whereby they learn to manage their personal and social behaviors. CASEL (2019) identifies these social and emotional competencies as five: self-awareness, self-management, social awareness, relationship skills, and responsible decision making skills. It is in the five competencies, or in their lack, that shyness is identified. Shyness is an individual's feelings of hesitation and anxiety in the face of social novelty and perceived social-evaluation, characterized by an approach-avoidance conflict in such situations, (Coplan et al. 2004). Shyness leads to adverse social consequences that can last a lifetime (Coplan & Armer, 2005; Findlay et al., 2009; Lao et al., 2013; Rubin and Coplan, 2004) and it is also responsible for significantly poor academic results (Coplan et al., 2011; Hughes and Coplan, 2010; Lao et al., 2013; Paulsen and Bru, 2008). There are certain interventions that have been found to promote growth in the five SEL competencies. These include the use of small groups, games, technology, and SAFE programs (Coplan et al., 2011; Durlak et al., 2011; Hromek & Roffey, 2009; Lehenbauer et al., 2013;Van Velsor, 2009). As students become more fluent in prosocial behaviors they can also become less shy (Coplan et al., 2011; Hughes and Coplan, 2010; Lehenbauer, et al., 2013).

The flipped classroom is a classroom model where students are introduced to new content via a short video before class and then spend class time in active learning. The flipped classroom is becoming increasingly popular because of the research showing tremendous academic results, especially in the STEM subjects (Cetinkaya, 2017; Moran & Young, 2015; Sirakaya & Ozdemir, 2018). There does not seem to be any direct research investigating the link between the flipped classroom and social and emotional learning and shyness, but some of the research identifies non-academic benefits of the flipped classroom that align with the five SEL competencies and shyness (Girmen & Kaya, 2018; Jdaitawi, 2018; Karademir & Deveci, 2019; MCollum et al.,

2017; Patton, 2015; Sirakaya, 2018; Sookoo & Boisselle, 2018; Zainuddin & Attaran, 2016). These alignments are significant in the research and there is a clear correlation of the flipped classroom and increased SEL competencies. Also, the research supports that an increase of SEL competencies promotes the prosocial skills that lessen the negative effects of shyness. These are the intersections of research that this paper has sought to investigate more closely.

CHAPTER III: DISCUSSION AND CONCLUSION

Summary of Research

Social emotional learning, the method of helping students learn to self-manage and to develop prosocial behaviors, has become somewhat mainstream recently, if not in practice at least in theoretical acceptance. CASEL (2019), the Collaborative for Academic, Social, and Emotional Learning has identified the five main aspects of social emotional skills as self-awareness, self-management, social awareness, relationship skills, and responsible decision-making skills.

The self-aware person is able to identify his emotions and beliefs and also understands how they affect his behavior. A student high in self-awareness has a healthy sense of self-efficacy, a growth mindset, and a grounded self-confidence. Self-efficacy is the belief that one holds about his ability to accomplish certain tasks and is closely tied to motivation, task engagement, and long-term success (Constantine et al., 2019; Yuksel et al., 2019). Growth mindset is that aspect of self-awareness that leads a student to view failure and struggle as part of the learning process and not as an indictment of limited competence. Now, a healthy self-awareness can be a springboard for self-management skills. These are the skills related to setting and reaching personal and academic goals. Self-management hinges greatly on self-regulation skills (Shih, 2019) like not giving in to frustration and being able to adapt plans midcourse.

Another important aspect of SEL is social awareness and this includes interacting appropriately in various settings with different persons, cultures, and perspectives. The socially

aware student is one who is ready to integrate smoothly into society's workings (Dar, 2016). As students become more socially aware they are ready to make use of relationship skills, namely negotiation, compromise, listening, and cooperating. These are the skills needed to maintain relationships with diverse people over time and through difficult scenarios. Finally, social and emotional learning is concerned with responsible decision making. This entails students making complicated choices while taking into account the ethics of a situation, far-reaching consequences, social norms and the well-being of oneself and others (Casel, 2019).

The shy student, one who does not voluntarily interact with others even though he may have a desire to participate in the group, suffers from a lack of social and emotional skills (Coplan et al., 2004). The shy student is beset with feelings of hesitation and anxiety in the face of new situations and is at major risk of losing out on critical social interactions.

The lack of social emotional skills has profound consequences on students' academic achievement and on other areas of their lives. Shy students are consistently rated as less intelligent than their less-shy peers, even when their standardized scores are the same (Coplan et al., 2011). Shy students are also lonely and insecure and rejected by their peers, and they seem to lack age-appropriate interpersonal problem-solving skills (Rubin & Coplan, 2004).

Students that do not have adequate relationship skills do not make good relationship partners and they are not sought out as friends (Rubin & Coplan, 2004). If coupled with a lack of social awareness, these same students are not able to successfully learn collaboratively with teachers or peers (Yuksel et al., 2019). Those with poor self-awareness also find it difficult to motivate themselves or engage in tasks that bring them closer to their goals. And without a growth mindset, they are more likely to quit an endeavor when faced with obstacles (McClendon

et al., 2017). Students with low self-regulation skills and low self-esteem score lower in mathematics (Karademir & Deveci, 2019), while students that are less socially skilled score lower in courses that typically require more social interaction, like social studies and literature (Paulson & Bru, 2008).

Some interventions have proved to be helpful in increasing social emotional learning. Scaffolding learning and making it low-risk bolsters students' self-efficacy and facilitates a growth mindset (Constantine et al., 2019; McClendon et al., 2017), while self-regulation skills are supported by a teacher's democratic attitude (Karademir & Deveci, 2019). Self-management skills are encouraged when learning includes times for evaluating progress, checking for understanding, brainstorming ways forward, and social interactions, especially dialog (Oppong et al., 2019). Role-play or specifically assigned practice of respectful and cooperative behaviors in listening and communication (Oppong, et al., 2019; Sugushita & Dresser, 2019) lead to better social awareness and allow an individual to become more reflective about himself and others. Communication skills and actual relationships can be fostered by instructor-facilitated perspective taking and patient listening and negotiating differences (Oppong et al., 2019; Rubin & Coplan, 2008; Van Velsor, 2009). Responsible decision making is taught by making the classroom more democratic, giving students more input in their learning, and creating opportunities for peer tutoring (Yoder, 2014).

Shy students in particular may be helped in the classroom by increasing their vocabulary and language skills, so that their social interactions are more successful, in turn boosting their confidence in social settings (Coplan & Armer, 2005). Also, directly teaching shy children

coping skills that replace internalizing coping strategies may alleviate the symptoms of shyness (Findlay et al., 2009).

Lehenbauer et al. (2013) found that shy students made significant gains in social emotional learning by direct instruction of social skills, even in an online classroom. Coplan et al. (2011) noted that teacher strategies that focus on improving the quantity and quality of peer social interactions could improve outcomes for shy children. Along the same lines, Van Velsor (2009) stated that the ideal SEL vehicle is the integrated task group that operates as a team where students learn how to give and receive constructive criticism, make good decisions, make plans and solve problems, and resolve conflict. Other effective SEL vehicles include classroom games (Hromek & Roffey, 2009) and, according to Durlak et al. (2011) SAFE programs: sequenced, active, focused, and explicit.

The flipped classroom moves theoretical instruction prior to class time. Students watch short videos that introduce them to new content and they then spend class in active learning, which research shows is most effective for learning (Cetinkaya, 2017). Also, the teacher in the flipped classroom is more democratic than the traditional, authoritarian classroom teacher (Patton, 2015; Sirakaya & Ozdemir, 2018) and is concerned with their relationship with the student.

Students in the flipped classroom have scored higher in academic achievement than their traditional counterparts, especially in STEM areas and where there is a strong memorization component (Moran & Young, 2015). The flipped classroom has also been shown to boost feelings of competence and autonomy and relatedness which translates to greater extrinsic and intrinsic motivation (Sookoo & Boiselle, 2018). Students in the flipped classroom report positive

peer relationships and a greater sense of connectedness. They develop better communication skills and become more comfortable in a large social setting. The flipped classroom boosts sense of self, empathy, and positive social interaction (Jdaitawi, 2019). Because they are responsible for more of their learning students develop better self-regulatory skills (Jdaitawi, 2019) and self-paced learning (Muir, 2016; Sirakaya, 2018; Sookoo& Boisselle, 2018). The use of games and small groups in the flipped classroom has also been tied to reduced anxiety in students and greater student participation, attention, and curiosity (Germin & Kaya, 2015; McCollum et al., 2017).

The flipped classroom offers shy children especially a safe space to ask questions and make mistakes as well as approach their teacher with less embarrassment (Seaton, King, & Sandison, 2014; Zainuddin & Attara, 2016).

Professional Application

The importance of social emotional learning is grounded in research that reaches across the globe. Already in the United States there are a few states that have written social emotional skills into their state standards, setting the stage for district supported, school-wide SEL programs. It is crucial that states that set SEL standards closely follow the established research in the identification of the five aspects of social and emotional skills as well as those other skills that boost and flag students' prosocial skills.

Students' social emotional learning, however, is tied up in teachers' perceptions, biases, and closely held beliefs. States can create standards for teachers' training that include the theory and best practices of social emotional learning, but universities and colleges must also emphasize

and convince teaching students across content areas of the necessity and benefits of social emotional learning in every classroom.

School districts can set into motion strategies that place SEL into school life for their community members. They must build support within the community and among families for district-wide SEL programs, strengthen the social emotional learning competencies of adults in the district, while promoting social emotional learning for its students. Districts must build SEL into their vision, their mission, and their budget at their first foray into the SEL field and again as they become established, continuing to monitor progress amid new and related research. Initial budget costs should include development of online and computer-based programs for learning social and emotional skills.

SEL, in particular, depends on adult modeling and training, so an interested school must be willing and prepared to ensure teacher and parent buy-in, as well as specific training in best practices. School-wide programs that are not well-designed and/or well implemented are not effective in enhancing the prosocial behaviors of its students. Here, too, schools must take care to continually assess and improve their SEL programs according to newer research.

Social emotional learning programs may have their beginnings in research and colleges and mandates and districts, but the heart of SEL takes place in the classroom with an individual teacher and that community of students. The teacher that is implementing an SEL program should be trained in research-based best practices and SAFE guidelines for successful social emotional learning in the classroom. Students, especially shy students, are better served when surrounded by adults that are more democratic instead of authoritarian, so classrooms should be designed to include more listening and collaborating on the part of the instructor. Teachers

should model prosocial behaviors by building close relationships with their students and creating a safe space for their learning. Social emotional skills should be taught both by direct instruction and by integration into other methods used across the curriculum, like small groups, games, and online forums.

Flipping the classroom takes a tremendous amount of preparation, so teachers might choose to begin by flipping only a fraction of their classes, until they have created or curated a larger library of videos and in class activities. Videos should be no longer than ten minutes and should be made interesting and essential. There may be some additional cost to flipping the classroom as teachers may need to set up an unobtrusive viewing station in their classroom for students that were not able to watch the pre-class material. The most important part of implementing a flipped classroom is staying true to the essential theme of the flipped classroom which is active learning. The professional educator of the ideal flipped classroom is intentional, reflective, and adaptive: creating active learning opportunities like small groups, games, open-response, multi-attempt quizzes, role-play, and collaborative problem solving. Teachers should stay abreast of future research that investigates best practices.

Teachers should make sure that shy students are given opportunities to work alone or in small stable groups when learning new material, and set up an online forum where students can ask questions with some anonymity. Teachers can also employ peer-focused strategies in creating opportunities for social interaction.

These actions at the state, district, university, school, and classroom level are necessary steps in making social emotional learning available and successful for all, especially shy students.

Limitations of Research

There seems to be no direct research on how the increased social demand of the flipped classroom affects socially passive students. This ties to the absence of current research specifically concerning different degrees or percentages of "flippedness" in the classroom. Shy students need both stability and social opportunity, but at present there is no indication of a point of optimization.

Further research ought also to try to pinpoint whether benefits in flipped classrooms are due solely to the flipped classroom model or to the use of some specific interventions or pedagogy.

The scope of this paper did not include other important research that questioned the ethics of implementing social emotional learning programs in districts and schools and the possible breach of privacy in doing so.

Implications for Future Research

There is a lot of research concerning social emotional learning and, separately, flipped classrooms. It would be useful if more studies were undertaken to measure the effects that flipped classrooms in particular had on bettering social and emotional skills. McCollum et al. (2017) chanced upon some important conclusions about these effects, and an expansion of his findings would be helpful. This might include a comparison of student academic and social emotional outcomes in a traditional classroom, an essential flipped classroom, and a flipped classroom designed with SAFE guidelines.

Paulson and Bru (2008) studied the academic achievement of socially passive students across content areas and found that academic success in highly social content areas depended

upon prosocial skills. Researchers that are interested in how the flipped classroom may affect social emotional learning should expand on Paulson and Bru's work, comparing the outcome of shy students in traditional STEM classrooms to those in flipped STEM classrooms, investigating whether the increased academic benefits of the flipped classroom still hold when social passivity becomes a liability.

Furthermore, because self-paced learning has a significantly high correlation to academic achievement and seeing that the flipped classroom uniquely lends itself to self-paced learning, it might be interesting to conduct more pointed research in this direction (Sookoo & Boisselle, 2018).

Also, the importance of social emotional skills is well researched and widely accepted, but concerns about the right of state or schools to define, design, and implement social emotional learning programs are equally legitimate. Future research should reflect on the question of the ethics of explicit and/or mandated social emotional learning programs at the state, district, and school level.

Conclusion

Is the flipped classroom an appropriate vehicle for social and emotional learning, especially as an intervention for shy students? Social emotional learning is generally concerned with self-awareness, self-management, social awareness, relationship skills, and responsible decision-making skills (CASEL, 2019). Research shows that social and emotional skills are best learned in an active setting (Hromek & Roffey, 2009; Oppong et al., 2019; Rubin & Coplan, 2004; Sugishita & Dresser, 2019;Van Velsar, 2009). The essential aspect of the flipped classroom is its active learning component in the classroom where the professional educator

designs and monitors collaborative projects, task groups, and advanced problem solving. Although classrooms are generally flipped for academic reasons, researchers are finding that students in the flipped classroom are making significant strides in social and emotional skills, too (Girmen & Kaya, 2018; Jdaitawi, 2018; Karademir & Deveci, 2019; MCollum et al., 2017; Patton, 2015; Sirakaya, 2018; Sookoo & Boisselle, 2018; Zainuddin & Attaran, 2016). Shy students are approach-avoidant in new situations. The flipped classroom may cause them particular stress and negative consequences because it is more socially demanding; at the same time research shows that increasing social interactions improve outcomes for shy children (Coplan et al., 2011). Teachers may work to include some interventions that can help the shy student succeed in the flipped classroom, including opportunities to work in stable groups and present in a predictable way, teacher-initiated relationships, a safe space to participate, and the use of technology to teach social and emotional skills (Coplan & Armer, 2005; Coplan et al., 2011; Findlay et al., 2009; Hughes & Coplan, 2010; O'Connor et al., 2014; Paulsen & Bru, 2008).

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Appendix A

(as needed)