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Book Reviews

A Discourse Analysis of Preservice K-8 Teachers' Perceptions of the Fine Arts and Implications for Arts Integration across the Social Sciences

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Introduction

This study contributes additional knowledge and an updated understanding of K-8 preservice teachers' perceptions of the fine arts for an integrated curriculum approach in the context of experimental aesthetics education (Berlyne, 1974; Seifert, 1992; Oreck, 2004; Frawley, 2013) and discipline-based art education across subjects (Greer, 1984; Jalongo & Stamp, 1997) which addresses the larger discussion of an integrated approach to teaching the social sciences, English language arts, and other K-12 subjects (Keating & Gillin, 2019). This study is focused on preservice K-8 teachers' responses—at a university in the United States—to a survey on their perceptions and experiences with the fine arts in their education and how they may integrate the fine arts into their teaching practice. This study adds another data point to studies that address an integrated curriculum approach across K-12 subjects (see Keating & Gillin, 2019), and seeks to provide an answer to the research question: How do preservice elementary teachers conceptualize the fine arts in relation to self-efficacy?

Method

A discourse analysis is performed based on Gee's (2011a, 2011b) method. I followed the following six steps outlined by Gee (2011a) for a researcher doing a discourse analysis. First: "Pick a piece of data (a big or small interaction, narrative or other extended piece of language, an interview, or a written text, for example) that both interests you and that you believe will speak to or illuminate an important issue or question" (Gee, 2011a, p. 125). Second: "Transcribe it as closely as you can, but with an eye to the features you think will be most important for the issue or question in which you are interested" (Gee, 2011a, p. 125). Third: "Pick some key words and phrases in the data, or related families of them, and ask what situated meanings these words and phrases seem to have in your data, given what you know about the overall context in which the data occurred" (Gee, 2011a, p. 125). Fourth: "Think about . . . what and how social activities and socially situated identities are being enacted and/or recognized in your data" (Gee, 2011a, p. 125). The survey was designed to elucidate this, especially Question #8 of the survey: *Think of an activity that you enjoy (such as a hobby, game, sport, et cetera) and now consider how that personal passion could be translated into fine arts integration in a K-8 classroom. What activity would you choose to explore further for which you could potentially create an arts integration plan?* This is also in harmony with Gee's (2011a) assertion that "A discourse analysis argues that certain data supports a given theme or point (hypothesis)" (p. 124). Fifth: "Think about the social languages and Discourses that appear to be relevant, in whatever ways, to your data" (Gee, 2011a, p. 125). And sixth: "You can, if appropriate, try to extend your analysis to other parts of your data or new sources of related data (or to data in the literature)" (Gee, 2011a, p. 126).

There is evidence that the integration of the arts across the curriculum tends to increase many students' creative engagement with course content (Smithrim & Upitis, 2005; Lynch, 2007; Furniss, 2008; Hartjen, 2012). However, art has tended to be among the first programs removed from school programs during times of fiscal stress in school districts (Cahan & Kocur, 1996; Apple, 2004; Gelineau, 2012). *Aesthetics* education may be more inviting to more students as it is predicated on *creativity* broadly defined rather than the more rigid notion of the fine arts. Despite this, there was no second edition of Jalongo and Stamp's (1997) textbook on aesthetic early childhood education, and the general lack of

aesthetics education textbooks seemed to coincide with the No Child Left Behind Act (NCLB) of 2001 that emphasized summative assessments in the form of multiple-choice tests.

Participants and Protocol of the Two Surveys

Based on Yin's (2014) and Fowler's (2014) suggestions for alternative approaches for interview styles in which empirical data is part of the study design as a background and not the foreground for developing a new theory (Charmaz, 2014), I used what Fowler (2014) noted: "a good strategy may be to put the questions in a self-administered form either in a questionnaire or on the computer" (p. 64). That self-administered form in this study is the survey.

Participants were preservice K-8 teachers (n = 37 in year one [Y1], and n = 33 in year two[Y2]) at a public university in the United States in the arts integration methods course as part of their elementary education degree program, with data collection concluding in 2015. The Y1 survey was primarily a qualitative short-answer survey and the Y2 survey was a quantitative survey. The two surveys were answered by two different groups of K-8 preservice teachers in the same teacher education program at the same public university in the United States in which the two groups of participants were similar.

Participants were told to not write their name or any other identifying information on the survey. Participants were invited to complete the survey the first week of class and place the completed or non-completed survey in a file folder at a desk in the classroom. I was not at the desk that the file folder was located, so that I did not know who did or did not complete the survey, nor would I be able to link participants' individual identity to any survey submitted.

Procedures

This study features a qualitative case study design using discourse analysis (Yin, 2014; Gee, 2011a, 2011b). The design of this study is not seeking to assert a specific causal relationship; therefore, the traditional empirical internal validity assumption is "inapplicable to descriptive or exploratory studies (whether the studies are case studies, surveys, or experiments)" (Yin, 2014, p. 47, parenthetical in original).

The definition of aesthetics education (see Greene, 2001) is applied in this study for teacher education and K-8 curriculum in which aesthetics is integrated throughout the core subjects to foster greater investment—passion—in learning and demonstration of learning through the design and production of aesthetic products. This is both an operationalization of aesthetics as art inquiry and philosophical inquiry for an ever-emergent curriculum.

Addressing Validity

The empirical component is part of the foundation for developing a theory—in this case an aesthetic curriculum theory—and that data is descriptive and exploratory for identifying how a theory may fill gaps in current understanding of a given phenomenon or field. In this study, the development of aesthetic identities in preservice teachers and the implications for teacher education curriculum are broadly identified based in part on data collected through two survey instruments. Surveys were designed for this study "To meet analysis needs," as stated by survey theorist and methodologist Floyd Fowler (2014), who concluded: "A *special-purpose survey* may be the only way to ensure that all the data needed for a given analysis are available and can be related" (p. 3, emphasis in original). In other words, the data in this study provides a baseline of the preservice teacher vantage point in their prior experiences with the arts. This calls for an exploratory special-purpose survey research study (Yin, 2014; Fowler, 2014). Data is collected that is analyzed for a baseline direction which the researcher may utilize to develop a conceptual framework that informs an understanding of how to define, address, and guide aesthetic identity though teacher education. The type of study that is developed here can have the further purpose of adaptation for presentation to legislators and funding organizations to support arts-integration in schools.

Internal validity comes from the emergence of a theory supported by the data when contextualized with the extant literature. With the understanding that experimental aesthetics was rooted in a grounded theory approach, as the survey instrument "quickens the speed of gaining a clear focus on what is happening in your data without sacrificing the detail of enacted scenes" (Charmaz, 2006, p. 14). Charmaz (2006) explained grounded theory through artistic metaphor: "Like a camera with many lenses, first you view a broad sweep of the landscape. Subsequently, you change your lens several times to bring scenes

closer and closer into view" (p 14). As Patti Lather (1993) posited: "the conditions of possibility for validity are also its conditions of impossibility" (p. 687). What is particularly important for this study—as one influenced by grounded theory (Charmaz, 2006, 2014)—is Lather's (1986) suggestion that: "The search is for theory which grows out of context-embedded data, not in a way that automatically rejects a priori theory, but in a way that keeps preconceptions from distorting the logic of evidence" (p. 267). The surveys that I designed for the background data for this study are rooted in those conceptualizations of qualitative exploration in which I seek to understand K-8 preservice teachers' perceptions of the arts from their point of view so that a systematic aesthetic curriculum may be designed that is responsive to them and generates eventual intrinsic interest in integrating the arts across the curriculum to foster students' creativity in each subject of the elementary curriculum.

The discourse analysis that I conducted on the Y1 survey data—analyzed in the next chapter—is predicated on Gee's (2011a, 2011b) discourse analysis method. As Yin (2014) explained of exploratory case studies, validity as a term under a quantitative definition just does not apply to a qualitative study even if the exploratory case study draws inspiration for lines of inquiry from empirical data. Patricia Leavy (2009) stated it this way: "Qualitative researchers do not simply gather and write; they *compose*, *orchestrate*, and *weave*" (p. 10, emphasis in original).

Findings of the Discourse Analysis

The first tool that is applied is the form-function correlation (Gee, 2011a). I identified key constructs of grammatical person and key action words and phrases on Question #3 (see Table 1). I coded the sentences and sentence fragments into key thematic understandings based on the "utterance-type" (Gee, 2011a, p. 64) and correlated the thematic categories with the utterance-type based on the use of grammatical person in the text (see Table 2). Question #3 of the survey is: "Please define 'Fine Arts' (What do the fine arts mean to you?)." The form-function correlation spotlighted three correlations for the overall study: (1) preservice elementary teachers use certain linguistic constructions, such as first person pronouns, to associate themselves directly with positive information about their abilities entering the teaching profession; (2) they respond in the reverse to information that may be negative to their abilities entering the teaching profession; and (3) positive or negative content questions seem to correlate to the majority responses with words and phrases that indicate they are interpersonally oriented (when question is positive) or technically oriented (when question is negative).

As seen in Table 1 and Table 2, three key thematic categories emerged: (1) *mind-ethereal (intangible)*; (2) *practical (tangible)*; and (3) *combined intangible and tangible*. Four key constructs of grammatical person emerged: (1) *passive grammatical third person subcategory*; (2) *passive grammatical second person subcategory*; (3) *passive without grammatical person subcategory*; and (4) *action oriented first person*. I will now explain these categories and the form-function correlation.

Mind-ethereal (intangible) was derived from responses that included phrases such as "any expression," "thinking outside the box," and "express yourself" standing as a dependent clause that infer an assumption that the fine arts are ethereal and need no grounding in shared reality. The person in question did not need their art to be validated by another person. The inference is that the fine arts are all about the individual's own internal world.

Practical (tangible) was derived from responses that included phrases or words grounded in shared realities. For example, expression through "music," "dance," "photo," "painting," "drawing," and "sculpture" are tangible and, thus, verifiable by some community standard. Sentence structure indicated an assumption and assertion that a tangible medium must be used and visible to people other than the artist. Therefore, artful endeavors are "creative," but only in so far as the products from that artful creation are useful to someone other than the artist.

The passive grammatical third person subcategory use "people," "oneself," or similar distancing pronouns. The passive grammatical second person subcategory is a different type of distancing technique in which the reader is "talked at," so to speak, with an assumption that "you" know that the speaker does not really mean "you" personally, but generically. The passive without grammatical person subcategory completely leaves out any mention of a person. The reader is left with an assumption based on the context of the question. Finally, there is the action oriented first person subcategory in which the participant more

definitively states their personal stake in a "figured world" (Gee, 2011a, p. 76). I will discuss figured worlds in the next section on the researcher's assumption of preservice elementary teacher agency (See Table 6).

The three participants who were categorized as "action oriented first person" in their understanding of the fine arts were all also categorized as practical (tangible) (see Table 2). The combined intangible and tangible thematic category was derived from the responses that included phrases and words that were roughly balanced between what seemed to appear as the two opposite categories of mind-ethereal (intangible) vis-à-vis practical (tangible). The categories are not necessarily rigid, except I would suggest that the exception is the action oriented first person category. The grammatical structure is different from the second and third person in that "I" seems to assert a "claim" as an independent clause (Gee, 2011a, p. 64) or as the beginning to a second sentence. Even as the beginning to a second sentence, the use of the first person pronoun in this context essentially functions similarly to an independent clause. However, only three participants used the first person pronoun, despite the question specifically being phrased as: "What do the fine arts mean to you?" The last word in the question is "you," and yet only three of thirty-seven participants used the first person pronoun in their response.

The other forms of response may suggest an inferred first person, but many more participants used the first person pronoun in the next question prompting them to "explain an experience you have had with fine arts." The last word in the prompt is not "you," but twelve participants used "I" in their responses. The reason(s) for this grammatical shift in pronoun use between Question #3 and Question #4 are inconclusive. However, the shift in pronoun use between Question #6 and Question #7 seem to be more closely correlated to allow for a conclusion on what emerged as the pronoun use question.

An implication for personal pronoun use and frequencies. The form-function correlation and then "situated meanings" (Gee, 2011a, p. 65) of Question #6 and Question #7 yield an interesting correlation. The participants' grammatical person usage is nearly evenly split between grammatical first person and no person or inferred person, when they responded to Question #6 about their "greatest strengths entering the teaching profession." And grammatical second person is absent (see Table 4). However, when participants respond to Question #7 about their "greatest challenge entering the teaching profession," the use of the first person pronoun drops significantly and there is a corresponding increase in the use of no grammatical person at all nor what could be interpreted as an inferred first person (see Table 5). This suggests that preservice elementary teachers more often prefer to distance themselves through the use of grammatical constructs from something personally negative than positive.

Table 5 shows the correlation of thematic constructs with personal pronoun use. Two thematic constructs emerged: (1) *interpersonal* and (2) *technical*. Interpersonal is defined here as responses that included words and phrases such as "patience," "politics," and other similar words that infer relational interaction. Technical is defined here as responses that included words and phrases such as "discipline," "curriculum planning," and other similar words or phrases that infer measurable production in a school.

Five of the six participants who used the first person pronoun in their response to Question #7 were categorized as *technical*. The vast majority of participants answered without any grammatical personal pronouns; however, they were close to an even split between *interpersonal* and *technical*. A small majority were *technical*. Overall, the majority of responses, eighteen, were coded as *technical* and thirteen were coded as *interpersonal* (See Table 5). However, this was inverted when comparing the numbers in the thematic constructs of *interpersonal* and *technical* in Question #7 with the numbers in Question #6. The majority of the participants' (n = 26) responses were coded as *interpersonal* and the remaining participant responses (n = 11) were coded *technical* (see Table 4).

The implication is that the number of participants responses about their perceived strengths use the first person pronoun with a response that suggests an *interpersonal* orientation more frequently and in opposite correlation to their responses to their perceived greatest challenge entering the teaching profession. Not only does their use of the first person pronoun differ in correlation, but their responses are also more focused in *technical* rather than *interpersonal* themes (see Table 4 and Table 5). In other words, when talking about their strengths, more participants were *interpersonal* using the first person pronoun (see Table 4 for words associated with the *interpersonal* code). However, when talking about their

challenges, the numbers flip with more participants using an inferred third (perhaps first, but still only inferred) grammatical person. Ultimately, the implication is that the majority of participants linguistically disassociate themselves from their challenges, but linguistically associate themselves with their strengths.

Meaning and the imaginary. The discussion of the results thus far has focused on the correlation between first person pronoun form-function correlations to thematic constructs. Gee (2011a) asserts that in addition to the form-function correlation, there are two additional tools for discourse analysis: "situated meaning" (p. 65) and "figured worlds" (p. 76). The theme of the importance of *educational environment* emerged from the responses to Question #4 on participants' personal in-school "experiences with the fine arts" (see Table 3). Although the question asked about participants' experiences with the fine arts, nothing about context was stated. Participants seem to have situated the question within the context of formal schooling environments, even though the question does *not* limit the response to discussing in-school experiences with the fine arts. The responses were significantly tilted toward experiences in schools with the majority mentioning "high school" as the center of their understanding of fine arts. This may indicate that students are approaching these questions with unconscious background knowledge of recent policy language, such as the former Common Core State Standards Initiative (2011). A number of the participants mention "math" and "curriculum" in their responses, some positively and some negatively. Most mentions are positive, perhaps because of the emphasis on STEM training and the positive language used in various sources (National Council on Teacher Quality, n.d., 2012) for the importance of STEM.

As seen in Table 4 and Table 5, when participants reply to the question about their "greatest challenge" entering the teaching profession, the thematic correlation is the inverse of their response to their response to the question about their "greatest strength." Two thematic categories were coded: (1) *interpersonal* and (2) *technical*. Each question was coded to include similar phrases, but slightly different. The "interpersonal" thematic category for Question #6 ("greatest strength" question) includes words such as "compassionate," "enthusiastic," and "patience." The *interpersonal* thematic category for Question #7 ("greatest challenge") includes words such as "patience" and "politics." The "technical" category is essentially identical across both questions and includes words such as "curriculum" and "discipline." *Patience* was the word used that overlapped the most between the two thematic strength categories. Not only do the participants tend to disassociate themselves from their "greatest challenge" through the use of the grammatical third person or non-person, but there is also an inverse correlation in the thematic categories based on their responses. The inverse correlation is that when responding to the question about their greatest strength, the majority is in the *interpersonal* category, indicating that compassion, enthusiasm, and passion are their greatest strengths. However, when responding to the question about their greatest challenge, the majority is in the *technical* category, indicating that curriculum planning, politics, and classroom management seem to be their greatest challenge entering the teaching profession (see Table 4 and Table 5).

Assumption on Standardization and results implication to Question #7. This researcher assumed that standardized policy language—especially around science, engineering, technology, and mathematics (STEM)—would affect student responses more than it did on Question #7 about challenges entering the teaching profession. I began this research with this assumption because of "nonpartisan" reports on STEM competency (National Council on Teacher Quality, n.d.) and case reports such as those from the National Council on Teacher Quality (2012). The former Common Core standards infered a power relationship in which state and, increasingly, nationally mandated curriculum language projects power downward. I coded participant responses to Question #7 into two thematic categories: "macro-level" and "micro-level" challenges. Most participants identify their "greatest challenge" at the "micro-level" and not at the "macro-level" (see Table 6).

Gee (2011a) asserted: "A figured world is a picture of a simplified world that captures what is taken to be typical or normal" (p. 71). What was "normal" for the participants seems to have been that their individual agency *within their local school* is their greatest challenge. I refer to the participants coded as "micro-level" for their "greatest challenge inference" as *MicroGCIers*. For most participants, macro-level challenges that will affect them—such as the Common Core State Standards Initiative—are apparently

not of greatest concern at this stage in their career. These were the MicroGCIers. They used words and phrases that symbolically limited their agency or self-efficacy in designing curriculum.

However, of the participants who suggested that macro-level challenges were their greatest challenge—these participants will now be referred to as *MacroGCIers*—there was a correlation in their use of the grammatical first person. Only one of the six MacroGCIers used the first person pronoun, while five of the twenty-six MicroGCIers used the first person pronoun. (See Table 6). This is still a relatively small number but is significant in comparison of the two groups. This is also important for its implication for the participants' view of their own personal agency as they enter schools as teachers that I discuss below.

My analysis earlier of the grammatical first person being an "action" is in parallel with Gee's (2011a) assertion. The implication here is for preservice elementary teachers' view of their personal agency in the schools and how this may affect their artfulness. In this case, "artfulness" can mean "creativity" in general.

As seen in Table 6, participants' responses indicated that the majority is not concerned with Common Core standardization, or at the very least the concern is not in the foreground. Interestingly, the MicroGCIers (those who indicate that micro-level challenges are their greatest challenge) use first person pronouns far more than the MacroGCIers. This may suggest that MicroGCIers subconsciously practice personal agency. This correlates to their focus on micro-level challenges in that looking at the small challenges offers more opportunities to personally affect change. Macro-level challenges, however, may be seen as too big to affect change individually, and so the potential challenge of enforced standardization was that it could potentially too *powerful* for personal agency to have any affect. This would explain why the MacroGCIers use the third person or no grammatical person at all. In both cases, the two groups suggest an understanding of their political limitations within the overall structure of the formal schooling system.

Key words and motifs. Gee (2011a) suggests that the researcher doing a discourse analysis should: "Pick some key words and phrases in the data, or related families of them, and ask what situated meanings these words and phrases seem to have in your data, given what you know about the overall context in which the data occurred" (p. 125). The top four words in the participants' responses were: art, school, arts, and students. Participants' mention of art seems to be geared toward the visual arts. The most commonly mentioned form of art other than the visual arts was the aural art "music" with sixteen mentions. "Dance" and "drama" also featured prominently with sixteen mentions and seven mentions respectively. The responses that included dance and drama tended to come from the third question on definition of the fine arts, so the number of mentions for dance and drama is probably overrepresented in terms of actual interests of the participants long-term.

Of the visual arts, "painting" featured most prominently with eleven mentions, followed by "draw[ing]," "photography," and "scrapbooking." "Art" seemed to be a stand in term for any and all of the visual arts. Interestingly, ceramics was barely mentioned in the aggregate responses. Reasons for this omission are nebulous. An explanation is that participants inferred ceramics as part of the visual arts and so did not mention ceramics specifically in their responses; however, this explanation does not explain why other visual arts were specifically mentioned (such as painting and drawing) while ceramics was the only major medium of visual arts hardly mentioned at all. Speculative answers may be possible, but the data does not seem to offer any illumination on the question of the missing mentions on ceramics. Another speculative answer may be that materials for ceramics are perhaps not as easily acquired as drawing and painting materials. There may also be a perception that clay has to be fired in a kiln to be "finished," and perhaps participants have not had easy access to a kiln.

In terms of aesthetic words, "creativity" featured prominently with thirteen mentions. The majority of participants indicated that they would prefer to teach in Grades 1-3 with a significant, yet smaller, number indicating Kindergarten and the upper elementary grades of 4-6. Only a few indicated preference in teaching Grades 7 and 8. Mathematics was indicated the most (N = 16) as the "favorite" subject that the participants wanted to teach. This is why I discuss STEM at various points in this paper and include STEM as having a certain situated power in the background of the survey responses. English/Language

Arts was the second most indicated "favorite" (N = 13), followed by social studies (N = 10). Perhaps the increase in Science, Technology, Engineering, and Mathematics (STEM) discourse plays a role in mathematics being indicated the most by participants as their preferred "favorite" subject. Furthermore, only two of the written responses directly indicated that they thought teaching mathematics was one of their notable challenges entering the K-8 teaching profession. This could possibly be indicative of training in mathematics teaching methods or perhaps STEM training in general.

Participants seem to focus on the importance of creativity in their conceptualization of the fine arts. Assessment procedures should reflect this with an emphasis on individual student evaluation instead of teacher-centered grading. Perhaps this can be accomplished by asking the teacher to be a facilitator or coach-curator who fosters the development of individual creativity and expression. In this way, *students may evaluate their own work* according to an intrinsically developed aesthetic. The teacher would then record the student's created art piece accompanied by a written reflection consistent with a rubric co-constructed with the student based on their own aesthetic. The teacher would record that the students have done these two assessment pieces and the grade is awarded based on the student's creativity and not wholly on the teacher's own sense of aesthetics. In this way, there is a rubric that external evaluators can verify while students retain control over their intellectual work and still receive constructive feedback from the experienced teacher operating as a coach-curator.

I identified two major motifs from the text that the participants indicated in aggregate: (1) arts assessment and (2) attitude disjuncture. The two overall themes emerged from the aggregate analysis discussed. The participants did not specifically use those words/phrases.

The motif of *arts assessment* emerged in which participants noted their reaction to how their artwork was graded in their own K-12 experience. The majority of responses seem positive toward prior experiences with fine arts classes. However, there were some negative responses that indicated that some of the fine arts courses taken in K-12 and college were "not as fun" (or similar allusions) to less than positive experiences with grading or instructional delivery. In parallel with these assertions from some participants, is the suggestion in the responses that the participants' beliefs about their learning strengths and weaknesses were formed by the response from their teachers.

The aggregated responses suggest that participants believed that they were good at some subjects—such as mathematics—and worried about perceived weaknesses in teaching other subjects—such as English language arts. This is also suggested in their perceptions of what fine arts they believe they are good at or not so good at doing. If the arts are a diverse methodological, theoretical, and practical learning medium—and, as I suggest, the participants' aggregate responses indicate—there is also a complication in that one medium may work for one student but not for another. When introducing an alternative form of papier-mâché, for example, one student may think it is great while another student may say that it does not work for them. The teacher's grading and remarks tended to be associated with a particular medium and appeared to be a motivating participants' responses.

Fewer than twenty-five percent of the participants indicated sharply negative experiences with fine arts instruction. However, there were a substantive number of comments that focused on the negativity of teacher *assessment* of their work as students. Participant 2 stated: "In younger grades I liked them a lot, but taking FA in college was not as fun." Participant 3 stated: "My teachers were always correcting me w/ my art & calling it not art." Participant 4 stated: "Took art classes throughout school but I'm horrible at them."

Another motif to emerge was *attitude disjuncture*. Personal agency relative to the arts from the preservice teachers' perspectives varied depending on the question. As the sample below suggests, the participants' experience with prior arts-based courses seemed to reify *high fashion* as an exclusionary concept linked to "being artistic." This seemed to suggest a more nuanced practical view when considering Bayles and Orland's (2001) statement that "in most matters of art it is more nourishing to be a maker than a viewer" (p. 51). This may generally be the case, unless the teacher creates a negative assessment environment. The assessment of students' work by an authority figure had a profoundly long-lasting impact years after the grade, as suggested in this sample of responses to Question #4: *What best describes your experience with the fine arts?*

Negative

1. “When I think of fine arts I first thinking of paintings and my lack of ability to create artistic things. I so appreciate art and learning art, but being artistic is a talent I lack.”
2. “In younger grades I liked them a lot, but taking FA in college was not as fun.”
3. “My teachers were always correcting me w/ my art & calling it not art.”
4. “Took art classes throughout school but I’m horrible at them.”

Neutral

5. “I have not taken any non-required art courses since I don’t really consider myself artistic. However, I do enjoy painting on my own.”
6. “Anything that has to do with using creativity and not only logical thinking.”
7. “Fine arts can be only expression of emotion or just interpretation through the use of different materials.”
8. “I took basic art throughout school. I love to do crafty things at home, but I have never done any actual fine arts as an adult.”
9. “I took only the required fine arts courses in middle and high school.”

Positive

10. “My teacher was very enthusiastic about teaching which made it fun.”
11. “I took 2 art classes in middle school & loved it. One project that was particularly memorable was doing mosaic benches for our school garden.”
12. “I have taken drama every year in high school. I also played the flute in high school, and I love to paint on my free time. I have never taken any classes but I enjoy doing it.
13. “I have taken drawing class at WSU and love to paint. I also played piano and done choir my whole life.”

As can be seen in the sample of participants’ responses above, emotions were associated with the fine arts (see Bayles & Orland, 2001, for discussion of the arts and emotion). Kozulin (1986) noted in discussing Vygotsky’s work that emotion tends to be an integral part of the work people do, even if emotions are not readily apparent to the casual observer. The tension of external standards and internal standards may help account for some of the respondents’ ironic assertions. For example, Participant 13 stated: “I have not taken any non-required art courses since I don’t really consider myself artistic. However, I do enjoy painting on my own.” Even when not considering themselves to be “artistic,” respondents still identified a creative activity that they liked to do that was “artsy.” The disconnection here seemed to be from the assessment system utilized in schools that rigidly judged their artwork within deficit models. The preservice teachers in this sample seemed to indicate that their artwork was personal; therefore, arts assessment that was critical of their work was seen as an *ad hominem* declaration of negative value. They seemed to see the grade they were given on their artwork as a personal judgment.

The survey responses further suggested that preservice elementary teachers conceptualized the fine arts broadly, yet consistently, and they self-assessed their abilities with the fine arts within a *hierarchical* model. Some participants suggested that they were skilled in one arts field—such as dance—yet not skilled in another field and indicated that they were worried about other classroom factors such as classroom management and discipline. The participants’ responses to the eighth question on what activity or hobby they could specifically use in an artful way suggested that they were creative thinkers who were just beginning to see themselves as artistic whereas before they may not have viewed themselves as artistic.

Encouraging the participants to see that the arts are within their capability should be a systemic component in teacher education. The way to accomplish this is by requiring participants/students to do studio art labs as part of their teacher education program based on a new understanding of Greer’s (1984) discipline-based approach to art education that focuses more on interdisciplinarity that tends to be the focus of multiple-subject elementary curriculum. In this way, preservice teachers may better see some of their hobbies—such as scrapbooking (which was mentioned a number of times by participants)—as potentially a decorative arts practice under the auspices of the fine arts. Thus, preservice K-8 teachers

should be affirmed as artsy—as artistically efficacious individuals—who can and should integrate their creative talents into and across the curriculum.

As seen in Table 7, participants' responses to Question #8 about what hobby they like that could be utilized as a fine arts practice featured the broadest mix of grammatical person pronoun usage. The majority of responses were again in the third grammatical person, but six participants "spoke" in the grammatical second person (see Table 7). This is the least used grammatical pronoun structure in the responses across all survey questions. The implication is that a question about personal interests triggered a voice from the teacher persona in six participants whereas all the other questions never triggered a voice from the teacher persona, but instead maintained the voice of the student persona. This is especially interesting in comparison to the absence of the second person pronouns in the responses to Question #7 on participants' perception of their "greatest challenge" entering the teaching profession. Six of the participants indicated that they are "speaking" to a student when discussing an activity or hobby that they like to do (when using the second person pronoun "you" in their responses). An implication for elementary teacher education programs to explore may be how to foster preservice elementary teachers' sense of personal investment in fine arts integration with core curriculum that encourages them to build upon one of their hobbies and/or activities that could be related to the fine arts.

Implication for preservice teacher education with the arts. Highlighting teacher identity formation through arts processes is an emerging field. Using the arts to explore professional identity may be beneficial for preservice and veteran in-service teachers. The arts may include artful linguistics, painting, and the many other media that comprise the fine arts. This line of inquiry may be of interest internationally. Joseph and Heading's (2010) goal, for example, is to improve music pedagogy through narrative methodology in which preservice teachers reflect on their identity as teachers by journaling. Although not specifically about teachers, Stanley Crouch's (2006) narrative style in *Considering Genius: Writings on Jazz* suggests how jazz music can be a cultural teaching and learning method in an informal curriculum and potentially a formal curriculum.

Thomas and Beauchamp's (2011) study on new teachers in Quebec, Canada utilized metaphor as an artful linguistic approach to exploring how teachers form their identities. Thomas and Beauchamp (2011) assert that some of "the complexity of identity can be revealed through metaphor" (p. 764) and that those metaphors may indicate that some teachers transformed during their teacher education programs. Thomas and Beauchamp (2011) conclude: "Development of a professional identity does not automatically come with experience, and that some form of deliberate action is necessary to ensure that new teachers begin their careers with the appropriate tools to negotiate the rocky waters of the first few years" (p. 767). This is in parallel with the recommendations of Hong (2010) and Cheng, Chan, Tang, and Cheng (2009) to systematically implement a teacher education program that requires preservice teachers to critically reflect upon their professional identity development. The conclusion to be taken from the commentary cited above is that the vantage points of preservice teachers are important for understanding the role of the arts in the general classroom. The arts are also a tool that should be used by the preservice teacher to communicate their own teacher identity.

Summary of findings. Within the research question for this study, I assumed that Common Core policy language—especially around Science, Technology, Engineering, and Math (STEM)—would negatively affect the majority of student responses. This data suggests the opposite conclusion to that assumption.

Participants who indicated that micro-level challenges are their greatest challenge (see Table 6) seem to exercise more personal agency *textually*, than do those participants who indicate that macro-level challenges (such as standardized national curriculum) are their greatest concern. This may have implications for their exercise of agency in practice. Most notable is the correlation between first person pronoun use and thematic categories of the participants' understanding of the arts as either "tangible" or "intangible." All of those participants who used the first-person pronoun indicated the importance of the practical or tangible use of the arts rather than art for art's sake (see Table 2).

The implications for personal agency with the arts are founded on the basis of a form-function correlation of their use of grammatical person with thematic categories (Gee, 2011a). The form-function

correlation spotlighted three correlations for the overall study: (1) preservice elementary teachers who used first person pronoun usage vis-à-vis the arts is suggestive of their self-efficacy with the arts by associating themselves directly with *positive* information about their abilities entering the teaching profession; (2) they responded in the reverse by using third person or omitting personal pronoun usage altogether to disassociate themselves from information that was viewed as a *negative* reflection on their abilities entering the teaching profession.

Each student's written response is like a *tessera* tile: A mosaic is formed when the tesserae are put together which portrays an image greater in impact than the sum of its individual parts. The tesserae mosaic's aesthetic is greater than its constituent elements apart. Seemingly disparate responses—when analyzed through the discourse analysis of this study—coalesce to form a cohesive mosaic inferred in this summary of findings.

Discussion

I assumed that standardized policy language such as Common Core—especially around Science, Technology, Engineering, and Math (STEM)—would negatively affect the majority of student responses. This data suggests the opposite conclusion to that assumption. Participants who indicated that micro-level challenges are their greatest challenge seemed to exercise more personal agency *textually*, than do those participants who indicate that macro-level challenges (such as standardized national curriculum) are their greatest concern. This may have implications for their exercise of agency in practice. Most notable is the correlation between first person pronoun use and thematic categories of the participants' understanding of the arts as either "tangible" or "intangible." All of those participants who used the first-person pronoun indicated the importance of the practical or tangible use of the arts rather than art for art's sake.

The majority of responses seem positive toward prior experiences with fine arts classes. However, there are some negative responses that indicate that some of the fine arts courses taken in K-12 and college were "not as fun" or similar allusions to less than positive experiences with grading or instructional delivery. Fewer than 25 percent of the participants indicated sharply negative experiences with fine arts instruction. However, there were a substantive number of negative comments that focused on the negativity of teacher *assessment* of their work as students. Participant 2 stated: "In younger grades I liked them a lot, but taking FA [Fine Arts] in college was not as fun." Participant 3 stated: "My teachers were always correcting me w/ my art & calling it not art." Participant 4 stated: "Took art classes throughout school but I'm horrible at them."

Some participants had neutral comments, such as: "I took basic art throughout school. I love to do crafty things at home, but I have never done any actual fine arts as an adult." Some participants had positive comments, such as: "My teacher was very enthusiastic about teaching which made it fun;" and "I took 2 art classes in middle school & loved it. One project that was particularly memorable was doing mosaic benches for our school garden."

Ironic assertions were also made by some participants, such as the one by Participant 13: "I have not taken any non-required art courses since I don't really consider myself artistic. However, I do enjoy painting on my own." Even when not considering themselves to be "artistic" they do still identify a creative activity that they like to do that is indeed what would be considered artistic. The disconnection here seemed to be from the assessment system utilized in schools that seemed to rigidly judge their artwork. The preservice teachers in this sample seemed to indicate that their artwork was personal; therefore, arts assessment that was critical of their work was seen as an *ad hominem* declaration of negative value. In other words, they seemed to see the grade they were given on their artwork as a personal judgment.

The survey responses further suggested that preservice elementary teachers conceptualize the fine arts broadly, yet consistently, and they self-assess their abilities with the fine arts within a hierarchical model. Some participants suggested that they were skilled in one arts field—such as dance—yet not skilled in another field and indicated that they were worried about other classroom factors such as classroom management and discipline. The participants' responses to the eighth question on what activity or hobby they could specifically use in an artistic way suggested that many considered themselves creative thinkers

who were saw themselves as having potentially artistic abilities, whereas before they may not have viewed themselves as artistic.

In parallel with these assertions from some participants, was the suggestion in the responses about the participants' beliefs about their learning strengths and weaknesses. Looking at the aggregated responses inferred that students believe that they are good at some subjects—such as mathematics—and worried about perceived weaknesses in teaching other subjects—such as English/language arts. This is also suggested in their perceptions of what fine arts they believe they are good at or not so good at doing. If the arts are a diverse methodological, theoretical, and practical learning medium—as I suggest the participants' aggregate responses indicate—there is also a complication in that one medium may work for one student but not for another. When introducing an alternative form of paper mâché, for example, one student may think it is great while another student may say that it does not work for them. Context seems to be a motivating factor. Although not about arts education, Pashler, McDaniel, Rohrer, and Bjork (2009) made a related pedagogical suggestion in their study of the learning-styles differentiation instructional model in which they note "how often one student may achieve enlightenment from an approach that seems useless for another student" (p. 116). In a study of aesthetics in teacher education, Frawley (2013) suggested that aesthetic education may be important for preservice teachers because being comfortable with this area of art inquiry is likely to encourage teachers to be comfortable with many art forms that foster creativity across the curriculum.

Key Findings

Of the findings from this study, there were six key highlights. (1) Preservice elementary teachers who used first person pronoun usage vis-à-vis the arts is suggestive of their self-efficacy with the arts by associating themselves directly with positive information about their abilities entering the teaching profession. However, (2) those participants who did not have confidence responded in the reverse by using third person or omitting personal pronoun usage altogether to disassociate themselves from information that was viewed as a negative reflection on their creative abilities entering the teaching profession. (3) Arts assessment produced ironic results. For example, Participant 13 stated: "I have not taken any non-required art courses since I don't really consider myself artistic. However, I do enjoy painting on my own." And (4), even when not considering themselves to be "artistic," respondents still identified a creative activity that they liked to do that was "artsy." The disconnection here seemed to be from the assessment system utilized in schools that assessed their artwork within a deficit model. (5) If participants had taken an arts-based course in school, then there is a likely increased chance that they have visited an art museum in the past two years. And, (6) if participants were interested in art history, they tended to be interested in the performing arts.

Key Implications

There are two major implications of this study for practice. (1) Assessment of aesthetic curriculum products should generally not be conducted within a deficit model. (2) All preservice K-8 teachers should be encouraged to explore aesthetic curriculum design in an arts-integration course or similar arts-based course in which they explore aesthetic responsiveness by utilizing a broad range of the visual and performing arts in the design of social science curriculum and curriculum in the other content areas taught in elementary and middle school. This study adds to the view espoused by Gelineau (2012) who asserted: "A teacher need not be an artist, musician, dancer, or other arts professional in order to provide a nurturing arts climate that will vitalize the learning process" (p. 12). This adds to Jalongo and Stamp's (1997) explanation: "Mr. Brody, a student teacher, is a good example . . . By sharing his enthusiasm for art with the children (rather than by being a professional artist himself) Mr. Brody has contributed to children's aesthetic education" (p. 17, parenthetical in original).

There are two major implications of this study for curriculum theory. (1) This study established a way for constructing an aesthetic curriculum theory that bridges theory and practice—especially for social science—in a way that was inclusive of the arts for all. (2) The teacher can be a personification of an aesthetic that affects student perceptions of their own self-efficacy with co-constructing an inclusive classroom environment. Therefore, teachers should develop self-efficacy with arts integration in their

teacher education programs through an aesthetics education course or similar arts-integration course so that they project a learning environment in which student creativity is fostered across the curriculum.

There are two implications of this study for policy. (1) This exploratory case study establishes a precedent and foundation for additional research to be conducted in which larger sample sizes of preservice K-8 teachers can be organized for developing aesthetically responsive curriculum design in social science, mathematics, science, language learning, and health/physical education. (2) This study provides a new framework for discussing aesthetics education as that which can be defined and implemented across the curriculum.

In sum, for aesthetics to be applied across K-8 curriculum as a responsive praxis for all students, it must also be implemented in teacher education programs and ideally throughout what Ingersoll (2012) called teacher induction. Aesthetic theory can be applied to teacher education when it is a praxis model with an empirical foundation. Teacher candidates can develop their aesthetic identity through an aesthetics education course or similar arts-integration course in which students are encouraged to explore the visual and performing arts through production-based inquiry. Students design arts-based products across the curriculum. Aesthetic teacher identity is important because it can increase teacher self-efficacy and "investment" in the classroom. When teachers design and create, they are infusing their own aesthetic into the curriculum. Aesthetic teacher identity is developed through learning with the arts and designing curriculum with arts-informed processes during their teacher education program.

Through an arts integrated approach across the social sciences, preservice teachers may develop their individual and group styles based on their pre-knowledge. As they create, preservice teachers can move beyond pre-knowledge and acquire new knowledge through creating aesthetic curriculum products. As they become more comfortable with the aesthetic, they are more likely to see themselves as efficacious creators of aesthetically responsive curriculum that adapts to their students in which creativity may flourish while simultaneously meeting the assessment protocols of the Common Core and celebrating the individual aesthetic of all students.

Tables

Table 1

Key Grammatical Person Usage and Key Action Words from Question #3

Participant responses N = 37	Key Constructs of Grammatical Person and Key Action Words					
	First Person Pronoun ("I")	Second Person Pronoun ("you")	Third Person ("one" / "oneself" / "people" / "persons" / "themselves" / "individual"	No Grammatical Person	Word use: "Expression" and/or "Expressing	Word use: "Create" and/or "Creativity"
n	3	4	8	22	13	22

Table 2

Frequency of Key Thematic Understandings of the Fine Arts with Key Constructs of Grammatical Person from Question #3

		Key Thematic Categories		
		Mind-Ethereal (Intangible)	Practical (Tangible)	Combined Intangible & Tangible
Totals		7	27	4
Key Constructs of Grammatical Person	Passive grammatical third person subcategory	3	5	-
	Passive grammatical second person subcategory	1	3	-
	Passive without grammatical person subcategory	3	16	4
	Action oriented first person	-	3	-

Table 3

References to In-School Experiences with Fine Arts: Question #4 Please explain an experience you have had with fine arts.

Participant responses	Key Places Related to Educational Environment and First Person					
	"Elementary school"	"Middle school"	"High school" or "HS"	"College"	"school" written in response without specification of grade level	Begins response with grammatical first person ("I")
Number of responses that include the listed construct	2	1	10	2	4	12
Total	19					

Table 4

Frequency of Grammatical Person and Themes of Personal Strengths (Question #6).

Participant responses N = 37	Key Constructs of Grammatical Person and Key Themes for Personal Strengths entering the Teaching Profession				
	First Person Pronoun ("I" or "My")	Second Person Pronoun ("you")	Without person or Inferred Third Person	Interpersonal: compassionate, enthusiastic, passionate, patience, etc.	Technical: curriculum, planning, teaching (technical)
Totals	18	-	19	26	11
Interpersonal	12	-	14		
Technical	4	-	7		

Table 5

Frequency of Grammatical Person and Themes of Personal Challenges (Question #7).

Participant responses N = 37	Key Constructs of Grammatical Person and Key Themes of Personal Challenges entering the Teaching Profession				
	First Person Pronoun ("I" or "My")	Second Person Pronoun ("you")	Without person or Inferred First Person	Interpersonal: patience, politics, etc.	Technical: discipline, curriculum planning, etc.
Totals	6	-	31	14	23
Interpersonal	1	-	13		
Technical	5	-	18		

Table 6

Frequency of "Greatest Challenge" Themes with Grammatical Person Usage

Participant responses N = 37	Key Constructs of Grammatical Person and Key Themes of Personal Challenges entering the Teaching Profession				
	Grammatical Person Usage (coded from Question #7)			Thematic Strength Inference (coded from Question #6)	
	First Person Pronoun ("I" or "My")	Second Person Pronoun ("you")	Without person or Inferred First Person	Interpersonal: patience, politics, etc.	Technical: discipline, curriculum planning, etc.
Totals for Grammatical Person Usage and thematic Strength Inference categories	6	-	31	26	11
Interpersonal	1	-	13		
Technical	5	-	18		
Greatest Challenge Inference (GCI) coded from Question #7					
Micro-level (MicroGCI)	5	-	26		
Macro-level (MacroGCI)	1	-	5		
Totals for Greatest Challenge Thematic Categories	6	-	31		

Table 7

Frequency between Grammatical Person and Key Activities (Question #8)

	Correlations				
	Grammatical Person Usage (coded from Question #8)			Thematic Strength Inference (coded from Question #6), N = 37	
	First Person Pronoun ("I" or "My")	Second Person Pronoun ("you")	Without person or Inferred First Person	Interpersonal: patience, politics, etc.	Technical: discipline, curriculum planning, etc.
Totals for Grammatical Person Usage and thematic Strength Inference categories	4	6	25	26	11
Greatest Challenge Inference (GCI) (coded from Question #7), N = 37				Thematic Challenge Inference (coded from Question #7), N = 37	
Micro-level (MicroGCI)	5	-	26		
Macro-level (MacroGCI)	1	-	5	Interpersonal: patience, politics, etc.	Technical: discipline, curriculum planning, etc.
Totals for Greatest Challenge Thematic Categories	6	-	31	14	23

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College StudentsWho Experience Depression and Loneliness: The Influences of Sexual and Gender Minority Status

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Abstract

Loneliness and depression are common problems among college students, as well as among gender and sexual minorities. The purpose of this quantitative study was to examine rates of loneliness and depression in LGBT+ students versus in cisgender heterosexual students at Southern Arkansas University (SAU). The independent variables were the orientation and gender identity of the participant, and the dependent variables were the rates of loneliness and depression. Using the 123 participants' scores on the UCLA Loneliness Scale and the Beck Depression Inventory, loneliness and depression were found to have a strong positive correlation (r=0.72), indicating their frequent comorbidity. It was also found that those who held sexual minority status, especially non-monosexual status, were significantly more likely to experience elevated levels of both loneliness (p=0.001) and depression (p=0.000). The roles of family acceptance and year in school were also examined, but the study found no significant correlations between either of those variables with loneliness or depression.

Depression and loneliness are similar, but not identical, emotional ailments. Depression is a mental illness which is characterized in the Diagnostic and Statistical Manual Fifth Edition (DSM-V) by a low mood in addition to a variety of physical symptoms (American Psychiatric Association, 2013). Loneliness, a sense of lacking sufficient social relationships or support, is not a mental illness; however, a large portion of the literature on loneliness indicates that it contributes to both physical and mental illness (e.g. Hawkley &Cacioppo, 2010b). Loneliness has repeatedly been found to be associated with depression in adult populations, (Richard et al., 2017; Victor & Yang, 2012), and is correlated with suicidal ideation in youth, which is one of the nine DSM-V criteria for depression, (Lui & Mustanski, 2012; Victor & Yang, 2012). While both depression and loneliness are relatively common in the general population, there are certain groups with a higher likelihood of experiencing either state, including the elderly (Smith, 2012) the chronically ill (Hawkley &Cacioppo, 2010b), and college students (as cited in McWhirter, 1990). While studies have relatively consistently shown that sexual and gender minorities are more likely to suffer from mood disorders including depression (American Psychological Association, 2017; Botswick, Boyd, Hughes, & McCabe, 2010; Hatzenbuehler, Keyes, & Hasin, 2009; Meyer, 2007), there is little research on rates of loneliness in this population.

Gender and sexual minorities include individuals who identify as not-heterosexual or not-cisgender, or as neither heterosexual nor cisgender. Gender minorities include those who identify as Transgender, Nonbinary, Intersex, or another gender; sexual minorities include those who identify as Lesbian, Gay, Bisexual, Queer, Asexual, Pansexual, or another non-heterosexual orientation. Throughout this paper, both groups will be combined and abbreviated as LGBT+. Much of the research available on this population occurred during eras of social changes regarding LGBT+ rights (Meyer, 2007), and a significant portion focuses primarily on mood disorders such as depression.

In its first edition, the DSM included Homosexuality as a mental illness (as cited in Drescher, 2015). Subsequent versions of the DSM included diagnoses which applied to homosexuality without explicitly including it as a diagnosis, such as Sexual Orientation Disturbance and, later, Ego Dystonic Homosexuality (as cited in Drescher, 2015). During the period when non-heterosexual acts and attractions were considered pathological, much research on "comorbid" mental disorders was conducted. According to Meyer (2007), this research primarily served to either support or deny the claim that Homosexuality in itself was a mental disorder; thus, bias toward positive results was mitigated by researchers' opposing definitions of positive results.

In his meta-analysis of LGBT+-related literature, Meyer (2007) found that depression was frequently found to be more likely among LGBT+ individuals. Based on this analysis, Meyer (2007) applied the minority stress model to LGBT+ populations, asserting that constant awareness of one's status as a sexual minority leads to heightened stress in LGBT+ populations, and that that stress has a variety of detrimental effects. The minority stress theory is supported by more recent literature which has found that Bisexuals, who are regarded as outsiders by both LGBT+ and heterosexual populations and thus experience discrimination from a larger group than other LGBT+ groups, tend to have the highest rates of distress among LGBT+ samples (Botswick, et. al, 2010).

Loneliness is consistently found to be a risk factor for a variety of health concerns, including depression. In recent years, loneliness has been studied primarily in elderly adults, who tend to have high rates of loneliness. This is especially true in elderly men whose spouses have died (Rico-Uribe et al., 2018) and in the chronically ill (Hawkley & Cacioppo, 2010a). Much research indicates that loneliness tends to follow a lifetime U-shaped curve, with higher rates of loneliness in young adulthood and late adulthood than in middle adulthood (Hawkley & Cacioppo, 2010a; Richard, et al., 2017; Victor & Yang, 2012). College students, then, are at a relatively high risk of experiencing loneliness.

Sex differences in rates of loneliness are cross-culturally inconsistent, with some results indicating women to be more likely to be lonely (Lasgaard, Friis, & Shevlin, 2016) and some indicating that males have a higher likelihood of loneliness (Upmanyu, Bhagat, Dwivedi, & Upmanyu, 2013).Interestingly, there may be sex differences in the effects of loneliness, with being a lonely male as a risk factor for higher likelihood of negative health outcomes (Rico-Uribe, et al., 2018). Little research has focused on loneliness in LGBT+ populations, although many studies of suicidal ideation among LGBT+ youth find that social isolation, a contributor to loneliness, is a common risk factor for suicidal ideation (Lui & Mustanski, 2012). In a study examining loneliness in Thai Transgender youth, loneliness was found to be related to higher levels of education (Yadegarfard, Ho, & Bahramabadian, 2013).

Depression and loneliness are both widespread, serious mental health concerns. While the two have been studied together many times over, there is a dearth of literature on their correlation in LGBT+ populations, and much of the research occurred decades ago. There is value in understanding the relationship between loneliness and depression in a more modern context, especially given the rising rates of depression and dramatic shifts in technology in the years since many of the mentioned projects were completed.

Present Study

The purpose of this study was to examine rates of loneliness and depression in LGBT+ students versus in cisgender heterosexual students. The independent variables were the orientation and gender identity of the participant, and the dependent variables were the rates of loneliness and depression. The study functioned to examine whether LGBT+ students are more likely to experience loneliness and depression than sexual and gender majority students. This research also examined the role of family acceptance in predicting each dependent variable. Correlations between year in school with rates of loneliness and depression were investigated. And finally, the research sought to evaluate the strength of loneliness as a predictor for depression. The study utilized the UCLA Loneliness Scale and the Beck Depression Inventory in conjunction with self-reported demographic data to make this evaluation.

Hypotheses

This study explored five hypotheses:

1. LGBT+ students will be lonelier and more depressed than heterosexual, cisgender students.

2. Students who are lonelier will be more depressed than students who are less lonely.
3. Loneliness will be more common in LGBT+ students who do not feel accepted by their families than those who do.
4. Bisexual and pansexual students will be lonelier and more depressed than students of other sexual orientations.
5. First year students will be lonelier and more depressed than students who have been in school longer.

Method

Participants

Participants for this study were drawn from a combined convenience sample and purposive sample. The majority of participants were chosen because they were enrolled in courses with professors who allowed the researcher to survey. Other participants were chosen for their participation in the SAU Gay-Straight Alliance (GSA), which allowed the researcher to ensure that at least a 10% of participants were LGBT+ participants.

The participants were primarily heterosexual. Seventy-eight percent, or 96 of the total participants were Heterosexual, followed by 6.5% Pansexual (*n*=8), 5.7% Bisexual (*n*=7), 3.3% Asexual (*n*=4), 3.3% Gay (*n*=4), 1.6% Questioning (*n*=2), 0.8% Lesbian (*n*=1), and 0.8% Queer (*n*=1). Of the 22% (*n*=27) of LGBT+ participants, 80% (*n*=20) were out to their families, and only 15% (*n*=5) of those who were out felt unsafe and/or unaccepted by their families.

By gender, the sample was 61.8% Cisgender Women (*n*=76), followed by 32.5% Cisgender Men (*n*=40). Only one participant, 0.8% of the sample, was a Transgender Woman; there was also one Intersex participant. Three, or 2.4%, of the participants were Nonbinary. No participants self-identified as a Transgender Man.

Fifty eight participants (47.9%) of participants were first-year students in college, 29.3% were in their second year (*n*=36), 12.4% their third year (*n*=15), and 8.3% were in their fourth year (*n*=10). Two participants, (1.7%) were in their fifth year of school or later.

Due to the relatively small sample of LGBT+ participants and the heavy bias toward first year cisgender women, results must be interpreted with caution. There may be differences than were detected by this sample given that it is a sample of convenience.

Instruments

This study utilized the UCLA Loneliness Scale and the Beck Depression Inventory in conjunction with researcher-designed demographic questions. The UCLA Loneliness Scale-3 is a widely used instrument which has a reliability coefficient of 0.92 in populations of college students (Russell, 1996). The Beck Depression Inventory Version Two (BDI-II) has a reliability coefficient of 0.93 for college students (Beck, Steer, & Brown, 1996).

Both the UCLA Loneliness Scale (UCLA-LS) and the BDI-II are scored on a Likert-type scale. The UCLA-LS asks participants to rate twenty statements by how often they experience particular feelings; participants may select “Always,” “Rarely,” “Sometimes,” or “Never.” These are then scored to determine the participant’s overall loneliness score. The UCLA-LS scores can be between 20, the least lonely, and 80, the most lonely.

The BDI-II offers participants four choices, from 0 to 3, each of which corresponds to DSM-V symptoms of depression (Beck, et al., 1996). These are added up to a score between 0 and 63. Like the UCLA-LS, lower scores indicate less depression, while higher scores indicate more depression. Depression is considered severe when scores exceed 29. The BDI-II is a Level B assessment tool which requires licensure to administer; this study did not use the survey for diagnostic purposes and the researcher was trained and supervised in its administration by a Licensed Psychological Examiner.

The demographic questions were formatted in the same way that the UCLA-LS was formatted to maintain consistency. Only information which was directly related to a specific hypothesis was collected in order to ensure that the survey, which did ask participants for sensitive information, was as noninvasive as possible. This included asking participants for their Year In School, Sexual Orientation, and Gender. There were also two questions to be answered only if a participant was not heterosexual: “...are you ‘out’

to members of your immediate family?" and "...do you feel safe...and/or accepted by your family?" Instructions for the demographic section defined "cisgender," which is not part of the vernacular for most students; this definition was based on available literature.

Procedure

Participants received the informed consent form, and two stapled survey pages: one UCLA-LS with demographic questions, and one BDI-II. As a group, the participants were informed of the purposeof the study, as well. Confidentiality was ensured at each step of the data collection process.

The researcher used SPSS for data analysis. Each UCLA-LS and BDI-II was scored according to published guidelines. ANOVA analyses were run in SPSS to compare BDI-II scores and UCLA-LS scores across Year In School, Sexual Orientation, and Gender. Additional analyses were run comparing the mean scores of particular questions on the UCLA-LS across those groups. Finally, a Paired-Sample T-Test was conducted to compare BDI-II and UCLA-LS scores between individuals who answered yes to feeling safe and accepted by their families and those who answered no. The Pearson correlation was also run to assess the relationship between loneliness and depression.

Results

The purpose of this study was to explore the correlation between sexual orientation and gender with levels of loneliness and depression. In order to examine depression and loneliness, the study employed the BDI-II and the UCLA-LS along with demographic questions. The study was based on five hypotheses: that LGBT+ students would be lonelier and more depressed than heterosexual, cisgender students; that depression will be positively correlated with loneliness; that loneliness would be negatively correlated with family acceptance; that bisexual and pansexual identity would predict higher depression and loneliness; and that first year students would be lonelier and more depressed than other students. Several of the hypotheses were supported, but year in school was not found to have significant predictive value for loneliness or depression.

Hypothesis One

ANOVA analyses by sexual orientation and gender found that LGBT+ status predicted a higher mean for both loneliness and depression. The mean UCLA-LS score for all participants (n=123) was 44.20, indicating mid-range loneliness; for participants who identified as non-heterosexual (n=27), loneliness rose to a mean of 53.12. There is a significant (p=0.001) difference in levels of loneliness between all groups, indicating that sexual orientation likely has an effect on one's level of loneliness.

Hypothesis Two

Loneliness and depression did have a strong positive correlation (r=0.72). This indicates that loneliness and depression were commonly comorbid; higher levels of loneliness often indicative of higher levels of depression, and vice versa. While some individuals reported loneliness but not depression, there were no participants who reported mild to severe depressive symptoms without reporting loneliness.

Hypothesis Three

This study examined the role of family acceptance in experiences of loneliness. There was a slight difference in loneliness scores between participants who rated themselves as accepted versus participants who did not; however, the difference was not significant. Additionally, both groups had relatively high scores: The mean UCLA-LS score for those who felt accepted was 53.27, while the mean for those who did not feel accepted was 57.40. Given the small sample of those who were out to their families (n=20), these results are difficult to generalize, and may not be sufficient to either support or reject the hypothesis.

Hypothesis Four

Bisexual and pansexual participants were hypothesized to be more lonely and more depressed than both their heterosexual and LGBT+ counterparts. This hypothesis was supported by both groups' higher means in both categories. Bisexual and pansexual individuals scored a mean 28.66 on the BDI-II, while heterosexual individuals scored a mean 9.87 and other LGBT+ groups scored a mean 19.70 on the BDI-II. UCLA-LS scores produced similar results: Bisexual and pansexual participants scored a combined average 54.13, while heterosexual participants scored a mean 41.76, and other LGBT+ participants scored 51.6. Possibly depression has a stronger relationship with sexual orientation than loneliness, but both were higher in bisexual and pansexual groups.

Hypothesis Five

No significant correlation (p=0.715) was found between year in school and loneliness or depression. While third and fourth year students were somewhat more lonely and depressed, this difference could easily have been a result of sampling bias.

Discussion

The purpose of this study was to explore the differences in experiences of depression and loneliness between different sexual orientation and gender groups. The study also considered social factors that may contribute to those experiences, including year in school and family acceptance. While year in school and family acceptance were not found to be strongly correlated with the types of emotional distress examined in this study, it was found that non-heterosexual individuals were more likely than their heterosexual counterparts to experience both loneliness and depression.

The results of this study were consistent with previous research which tended to find that LGBT+ samples were more likely to suffer from mood disorders. Additionally, because bisexual and pansexual often experience discrimination on some level from both heterosexual and strictly homosexual peers, the increased levels of both depression and loneliness in bisexual and pansexual participants of this study supports Meyer's (2007) hypothesis that minority stress contributes to LGBT+ individuals' experiences of distress. This may also have contributed to the one queer-identified participant's high scores in both categories, but given the small sample and the queer label has historically had relatively ambiguous definition, that conclusion must be drawn with caution.

This study employed a primarily convenience sample. While some participants were chosen for their known LGBT+ status, most were simply available to the researcher to survey. As such, results may be skewed by the overabundance of cisgender participants, the large majority of whom were women, as well as by the large portion of first year students as compared with any other years. These imbalances in participant demographics may have contributed to bias in the results; with only two participants in their fifth year or later, for example, the mean BDI-II and UCLA-LS scores are unlikely to be truly representative of all individuals in that group, even when only SAU students are considered. In subsequent iterations of this study, a representative sample should be sought after.

Confounding variables were not heavily considered in this study. These may include race, ethnicity, socioeconomic status, religion, and many other considerations. All of these variables may have significant effects on loneliness and depression, and further research should work to include them in their considerations. Additionally, more information should be collected regarding family acceptance; while this variable was included in this research, its inclusion as a yes or no question provided little insight into the definition of acceptance or its role in mental health for LGBT+ individuals.

The results of this study provide important insight into LGBT+ college students' experiences. The increased likelihood of LGBT+ students being lonely and depressed highlights a need for counselors who are not only open and accepting, but vocally so; a lonely student who is unsure if they will be accepted may not seek treatment that they need for fear of discrimination.

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The Perceptions of Dual-Licensure Pre-Service Teachers Toward Including Students with Autism in Inclusive Settings

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Abstract

Students with a range of abilities, including those with Autism Spectrum Disorders (ASD), in typical classrooms remains a challenge for educators. Educational researchers suggest that the attitudes of pre-service teachers can influence their professional practice in an inclusive setting. This study examined the perceptions of pre-service teachers towards including students with ASD in an inclusive setting. Additionally, this study examined pre-service teachers' knowledge of ASD. Lastly, this study sought to examine if any correlation between pre-service teachers' perceptions towards including children with ASD in inclusive settings and teacher's actual knowledge of ASD might exist. Results supported prior research and indicated that pre-service teachers possessed positive perceptions toward including students with ASD generally, but positive perceptions fell when considering students with disabilities in general. In regard to participant knowledge of ASD, results indicated that the majority of pre-service teachers surveyed were knowledgeable about topics surrounding ASD and a positive correlation existed between positive inclusive perceptions and actual knowledge regarding students with ASD.

Introduction

With 95% of students with disabilities being educated within their neighborhood public school, and about 63% of U.S. students with disabilities being educated within inclusive settings at least 80% of the time (USDOE, 2017), trends toward inclusive education in the U.S. is evident. Successful inclusive education requires teacher expertise at both a general and special education level. Past researchers have found that both general and special education teachers often feel unprepared to work cooperatively within inclusive settings due to a lack of cross training regarding the teaching of with students with and without disabilities respectively (Gurgur & Uzuner, 2010). Such feelings of unpreparedness may affect teachers' perception of their self-efficacy to teach in these environments. This likely accounts for a found link between pre-service teachers' perceptions of their self-efficacy and their attitudes toward including students with disabilities within inclusive settings (Ahsan, Sharma & Deppeler, 2012).

Other researchers have supported an idea that teacher perceptions concerning inclusion may affect their use of successful inclusive teaching practices in inclusive settings and therefore may impact overall student achievement (Forlin, Earle, Loreman & Sharma, 2011; McCray & McHatton, 2011; Mdikana, Ntshangase, & Mayekiso, 2007; Woodcock, Hemmings & Kay, 2012). Pre-service teachers with more positive attitudes toward inclusion have expressed more confidence when working to educate students with disabilities and their attitudes toward inclusion have been shown to be more positive when they possess knowledge of inclusive practices (Campbell, Gilmore & Cuskelly, 2003; Forlin et al., 2011; Ruble, Usher, & McGrew, 2011; Woodcock et al., 2012). In this way, both internal teacher perceptions of efficacy and external influences of actual knowledge and experience related to inclusive teaching interact to influence educator efficacy in the inclusive classroom setting (Ahsan et al., 2012; Busby, Ingram, Bowron, Oliver & Lyons, 2012; Ruble, Usher & McGrew, 2011; Segall & Campbell, 2012). These findings provide evidence that inclusive classroom teachers require equal understanding of both general and special education practices.

Most programs in the U.S. however, exclusively prepare pre-service teachers for either general or special education practice (Anderson, Smith, Olsen, & Algozzine, 2015). Part of this may be driven by pre-

service teacher candidates' desire to become either special or general educators (Brackenreed & Barnett, 2006) as well as the breadth of content each subject area requires on its own. Still, it may follow that separate pre-service teacher training programs may be hindering the development of teachers proficient as inclusive educators (Pugach, Blanton, & Correa, 2011).

In contrast, dual degree teacher education programs prepare pre-service teachers with the classroom management and teaching skills necessary to support very diverse students, including those with ASD, within inclusive settings (Brackenreed & Barnett, 2006; Busby et al., 2012; Gartin Reao, McGee & Jordan, 2001). Such programs aim to provide training and coursework that involves inclusive teaching frameworks, methods and experiences applicable to the joint education of all students (Sari, Celikoz & Secer, 2009).These programs likely leave teachers feeling more prepared to teach within inclusive settings (Anderson, Smith, Olsen & Algozzine, 2015).

A study by McCray and McHatton (2011) discussed the growing movement toward educating students with disabilities in general education settings and emphasized the need for all teachers to be prepared to teach all learners. This study was conducted at an urban university in the southeastern United States where participants were enrolled in a course discussing the integration of students with special needs into general education settings (McCray & McHatton, 2011). The sample was comprised of 77 undergraduate elementary education majors and 38 secondary education majors. Data collection occurred during both the beginning and at the end of the course in order to investigate how the perceptions of pre-service teachers regarding inclusion may have changed using a likert scale (McCray & McHatton, 2011). Results indicated that even though participants were more positive toward inclusion at the end of coursework, both elementary and secondary teachers did not agree or were undecided "…when asked if they believe most SWDs could be educated in general education classrooms" (McCray & McHatton, 2011, p. 141). McCray and McHatton (2011) noted a concern with pre-service teachers saying that they are willing to implement inclusion to include students with disabilities, but they still view this with deficits as they possibly responded with a sense of compliance rather than affirmation of the strengths of students with disabilities (McCray & McHatton, 2011). This leaves researchers concerned with students' educational

experiences. An implication noted was that the pre-service teachers, whether intentional or not, seemed to provide answers that were socially acceptable (McCray & McHatton, 2011). Lastly, these authors felt that because general educators were required to take more active roles in teaching students with disabilities, they should be prepared to carry out specialized teaching tasks effectively. McCray and McHatton also emphasized that teacher preparation and experiences must address perceptions that will have an impact on their performance and ultimately on the outcomes of students educated in an inclusive classroom setting.

Also noted in the literature, pre-service teachers with negative attitudes may be less likely to be willing to utilize multiple strategies during instructional time in order to meet the diverse needs of all students in a general education setting (Campbell et al., 2003; Sharma, Forlin, Loreman & Earle, 2006). Negative attitudes can arise from a lack of teacher preparation and addressing teachers' attitudes towards inclusion within pre-service teacher educational programs (Avramidis et al., 2000). Therefore, teacher education programs should consider and address pre-service teachers' attitudes regarding inclusive practices (Alghazo, Bayliss & Burden, 2003; Forlin & Chambers, 2011; Sharma et al., 2006). In general, pre-service teachers' attitudes pertaining to inclusion include the foundations of a willingness to address challenges, such as teaching students with ASD (Busby et al., 2012). Researchers have discovered that positive attitudes are just as important as meaningful, quality teacher education because they are both strong predictors for successful teaching (Forlin & Chambers, 2011). In light of recent trends toward fully inclusive educational settings and the increased number of students diagnosed with ASD, it may be prudent to address pre-service teachers' perceptions toward including students with ASD in fully inclusive settings at the pre-service teacher preparation level.

The current study sought to extend previous research by McCray and McHatton (2011) and Ross and Cuskelly (2006) through the investigation of the level of knowledge pre-service undergraduate teacher candidates attending a dual license teacher preparation program had concerning ASD. Next, the present study sought to gain insights into these pre-service teachers' perceptions toward including students with ASD in an inclusive educational setting. Lastly, this study sought to investigate if any correlation existed

between dual licensure pre-service teacher candidates' knowledge of ASD and their corresponding attitudes towards inclusion of students with ASD within inclusive educational settings.

Methods

Descriptive research methods seek to describe a hypothesized phenomenon or correlation between two conditions. Within the present work, survey research was used in an effort to 1) understand pre-service teachers' perceptions of including students with ASD within inclusive settings, 2) obtain a scaled level of understanding of pre-service teachers regarding their knowledge of the characteristics of ASD and methods of teaching students with ASD and 3) to calculate any possible correlation between perceptions and actual knowledge of ASD at it relates to students with ASD and their participation as student within inclusive settings. The primary hypothesis tested was that increased knowledge regarding students with ASD would result in greater positive perceptions of teaching children with ASD within inclusive settings.

Instrument

The perception-based questions, were adapted with the original authors' permissions from those developed and utilized by McCray and McHatton (2011). Because McCray and McHatton were interested in perceptions regarding the inclusion of students with special needs in general rather than specifically students with ASD, the original questions were slightly modified from the original version by exchanging terms such as "exceptional needs" and "special needs" with "autism" in order to better support the specific research questions in the present work.

The modified McCray and McHatton (2011) survey items were examined using the same methods as the original authors by summing a 5-point Likert scale to determine a scaled level of comfort regarding the inclusion of students with ASD in an inclusive setting. Specifically, each response was given a point value as follows: Strongly Agree = 5 points, Slightly Agree = 4 points, Undecided = 3 points, Slightly Disagree = 2 points, and Strongly Disagree = 1 point. The use of the Likert scale as interval scale data for quantitative analysis has enjoyed a long history of use in the social sciences (Boone & Boone, 2012) and thus the Likert-scale data obtained from the perceptions survey responses were combined on an individual respondent basis to form an individual perception score for use in analysis (Table 2).

Cronbach's alpha, one of the most common measures of reliability (Field, 2013), was used to measure the overall reliability of the perceptions portion of the survey. By analyzing the Likert scale data for reliability using Cronbach's alpha, the variance within an item and the covariance between item(s) were examined. Typically alpha values of .7 to .8 are considered reliable, but values as low as .5 can be accepted depending on the context of research (Field, 2013).

Another set of survey questions was comprised of true/false questions and aimed at gathering an overall consensus regarding pre-service teachers' knowledge of students with ASD. These questions were slightly modified from those used by Ross and Cuskelly (2006) now known as the Knowledge of Autism/Asperger Syndrome (KAAS) instrument with permission from the original authors. Overall, the KAAS consisted of questions that covered aspects of ASD such as course, prevalence, cognitive ability, and associated characteristics (Ross & Cuskelly, 2006). The higher number of correct responses indicated a greater level of knowledge pertaining to ASD. For the purposes of the current study, only the portion of the KAAS that related to ASD was utilized. Higher scores indicated greater knowledge of ASD. Slight alterations of the KAAS included changing the original questions that utilized the word "children" to "students", as this word better related to pre-service teachers. Specific other alterations were as follows: the word "school" was exchanged for "academics" and "have autism" was exchanged for "be autistic" (Table 3).

Participants

Participants attended a mid-southern university in the United States. Following approved ethics procedures, participants were recruited through an email campaign and through one in person recruitment presentation from students enrolled in that university's undergraduate, dual license teacher education program (Special education K-12 and General Education K-6). Participants were also given a chance of winning one of two $25.00 general merchandise gift cards in a random drawing as an incentive to participate.

Analysis

Pre-service teacher knowledge of ASD was measured directly by summing the correct responses of each participant on the KAAS instrument. Likewise, perceptions of participants toward the inclusion of students with ASD within inclusive settings was measured directly by examining the McCray and McHatton (2011) survey items per author instructions. In order to analyze any correlation between pre-service teachers' knowledge of ASD and their perceptions of including students with ASD in a general education setting, a Pearson's 'r' correlation coefficient was calculated to measure the strength of relationship between the previously described two sets of scores. Last, because an additional hypothesis arose during data analysis, that differences may exist in knowledge and perception scores by each participant's class standing (years in the program; Freshman through year 5 Senior), applicable scores were analyzed for any significant differences in means through ANOVA testing.

Results

The total number of participants recruited were 49 ($n = 49$) representing 80.33% of the overall final year undergraduate pre-service teacher program enrollment population ($N = 61$) at the university in which the study took place. Demographics of participants can be found in Table 1. Of note is that only one out of 49 participants were male.

No statistically significant differences were found between class standing groups and knowledge of ASD $F(4,44) = 2.457$, $p < .05$). Likewise, there were no statistically significant differences between class standing group means and perception scores $F(4,44) = 1.707$, $p < .05$). In this way, the hypothesis that student scores in perceptions (more positive) and/or actual knowledge of ASD (higher knowledge) would increase as students progressed from freshman to 5th year senior was not validated.

Results regarding dual licensure pre-service teachers' perceptions regarding the inclusion of students with ASD within inclusive education settings were generally slightly positive. Overall mean scores on the modified McCray and McHatton (2011) survey ranged from 2.80- 3.82 (scores of 3 indicate 'undecided' with higher scores more positive) with specific means for each question shown in Table 2. All item responses obtained mean scores above 3 with the exception of one item, "I believe most students (regardless of the level of their disability) can be educated in a general education classroom." Additionally,

the responses on the perception survey instrument indicated a high level of internal consistency as determined by a Cronbach's alpha of .737.

Scores pertaining to participant knowledge of ASD were generally high. Knowledge of ASD testing mean score was mean= 15.73 (range 10-19) out of a possible score of 20, indicating a level of knowledge of ASD of just over 75% as measured by the instrument. A Pearson correlation coefficient was computed in order to determine any strength of possible relationship between pre-service teachers' perceptions regarding inclusion and knowledge regarding ASD indicated a significant positive correlation existed (r = .361, n = 49, $p < .05$) shown in Table 3.

Discussion

Results indicated that participants from the dual license teacher certification program did possess a reasonable working knowledge of ASD in general achieving correct responses on just over 75% of the 20 knowledge related questions as a group. Likewise, participants were consistent in indicating a generally positive perception of including students with ASD within inclusive educational environments. A positive correlation existed in the data to indicate higher positive perceptions of including students with ASD within inclusive environments correlated with a more advanced knowledge of ASD in general.

A closer look at the surveyed sample of pre-service teachers perception scores showed that participants generally agreed with inclusive practice, and they were willing to implement inclusive practices in their own classrooms. A key outlier to note was McCray and McHatton (2011) survey item 17: "I believe most students (regardless of the level of their disability) can be educated in a general education classroom" which received a lower percentage of agreeable indications on the Likert scale (72% slightly or strongly agree) and increased undecided or disagreeable percentages (28%) as compared to other questions on the perceptions instrument (see table 2). This lends evidence to the notion that there was some discrepancy with pre-service teachers' perceptions toward the inclusion of students with ASD and inclusion of students with any range of disabilities. Interestingly, these results were consistent with findings from McCray and McHatton (2011) when they discovered that participants were more positive toward including students with ASD, but they were undecided about inclusion pertaining to students with disabilities in general.

In the present study, this result may also be influenced by the pre-service dual license program content within the program of focus, which is intended to license graduates to teach 'high incidence' disability categories. It is likely that participants were not exposed to low incidence disability characteristics or instruction practices and thus could feel less able to meet the educational needs of students with more significant needs.

When results of this study are compared to both the McCray and McHatton (2011) and Ross and Cuskelly (2006) studies, it is evident that the findings are largely parallel. McCray and McHatton (2011) gave a similar Likert-scale scale to participants in their study that indicated 70% of participants felt positive toward inclusion (M = 4.31). Ross and Cuskelly (2006) gave a similar knowledge scale questionnaire to their participants with scores indicating a reasonable knowledge of ASD with an average of 66% correctly answered questions (M = 14.12 of 20). The closeness of results between the previous two studies and the present study is of interest given that both previous studies were conducted within non-dual license programs. These findings along with the present research results give some indication that pre-service teacher preparation programs may be preparing students to teach in an inclusive general education setting to a greater degree than previously thought and that this may be true of programs that treat special education programs as separate as well as those that have a dual-focus.

On the other hand, this finding may also indicate that the program of focus in the present study did not significantly influence advanced knowledge of ASD nor participant perceptions of including students with ASD beyond that which a non-dual license program might offer. Supporting this latter hypothesis is the finding in the present study that no significant difference existed between the knowledge and perceptions of first year students versus that of students ready to graduate. It is not possible to know for sure, which possible reason is correct to account for the similar findings across grade levels in the present study and similarities in the present study to past studies where participants were only enrolled in general education programs based only on the results of this current study. Future research in this area should focus on examining differences in the rates of increase in knowledge over the full course of a dual license program and compare such findings to those of a non-dual license program. Then findings should again be compared

to any changing rates of increase in any positive perceptions of participating students across the two conditions over time. This type of study would further this work and past work in determining the usefulness of dual versus single license programs across the US as they relate to perceptions of inclusion.

Limitations and Recommendations

Assumptions cannot be made that the results of this study can be directly attributed to other teacher education programs. When viewing this study, the reader must take into account that the population from which the sample was pulled, is limited ($N = 61$, $n = 49$). The participants in this study included only one male and were recruited from one mid southern university's teacher education program. Although it is true that accredited teacher education programs in the U.S. operate under the same set of standards, It is likely that each teacher preparation program would have different knowledge and perception score results that would be unique to that program. Therefore until more research is conducted and enough data collected from different programs around the country, results of this study should not be viewed as representing dual license programs generally. In order to generalize findings, future researchers should expand on this study to cover a larger geographical region in order to form an overall consensus regarding teachers' perceptions and knowledge regarding ASD.

It is also possible that participants, because of this topic and lack of experience working with students with disabilities, including ASD in their own classroom, may have responded more positively based on social desirability (Cameron & Cook, 2007; McCray & McHatton, 2011). Because of this, future researchers should consider administering a pre and post-test analysis to examine any possible differences between teachers' perceptions pre-service and in-service regarding the inclusion of students with disabilities, including ASD within inclusive classrooms. A follow up study of pre-service teachers upon exiting programs could lend itself to findings related to perception changes affected by factors such as experience and relate to knowledge gains made within the program itself over time (McCray & McHatton, 2011).

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Table 1

Participant Demographics

	Findings	
Subject	Percent	Count
Male	2%	1
Female	98%	48
ASD Course Taken?	86%	42
Asian	2%	1
African American	12%	6
Hispanic/Latinx	2%	1
White/Caucasian	84%	41
Program year 1	8%	4
Program year 2	20%	10
Program year 3	20%	10
Program year 4	37%	18
Program year 5	14%	7
Desire Gen.Ed. Teaching Position	86%	42
Desire SPED Teaching Position	14%	7

Table 2
Perceptions of ASD & Inclusion

	Findings	
Question Text	Mean	Mode
Including a student with autism will promote his/her independence.	3.63	5
Students with autism will find it easier to mix with their peers after leaving school if they have been taught together in general education classrooms.	3.41	5
The integration of general students with autism into classes is beneficial to all pupils.	3.37	5
Inclusion offers mixed group interaction, which fosters understanding and acceptance of differences.	3.69	5
As a teacher, I would be willing to have a student with autism in my classroom.	3.51	5
Inclusion will give students with autism a better chance to readily fit into their community.	3.59	5
With the help of experienced teachers, support services and special equipment, students with autism can do well in a general classroom environment.	3.65	5
The presence of students with autism in a general classroom helps the typical child understand and accept them in empathetic and realistic manner.	3.55	5
As a teacher I would be willing to take extra training so as to be better able to handle students with autism in my classroom.	3.82	5
I am willing to make needed instructional adaptations for my students with autism.	3.82	5
I believe inclusion is a desirable educational practice.	3.53	5
I believe most students (regardless of the level of their disability) can be educated in a general education classroom.	2.80	3

Table 3. Knowledge of ASD

Questions	True	False
More girls have autism than boys.	0% (*n*=0)	**100% (*n*=49)**
Many students with autism get upset if there are changes to routines at home or school (e.g. usually on Tuesdays they go swimming, but one day they can't).	**100% (*n*=49)**	0% (*n*=0)
All students with autism deliberately hurt themselves.	0% (*n*=0)	**100% (*n*=49**
All students with autism will become adults who have a job and live on their own (i.e. be independent)	20% (*n*=10)	**80% (*n*=39)**
Autism is more common in families who have a history of the disorder (e.g. more likely to have autism if grandparents have autism).	39% (*n*=19)	**61% (*n*=30)**
Most students with autism do very well with academics.	69% (*n*=34)	**31% (*n*=15)**
Students with autism don't seem to know how other people are feeling (e.g. they can't tell when you are feeling angry or sad).	**63% (*n*=31)**	37% (*n*=18)
You can "catch" autism from children who have it. It's a disease like chicken pox.	0% (*n*=0)	**100% (*n*=49)**
Many students with autism have problems looking at you in the eye when you are talking to them.	**88% (*n*=43)**	12% (*n*=6)
All students with autism will eventually "grow out" of the disorder and no longer have autism as adults.	0% (*n*=0)	**100% (*n*=49)**
Some students with autism sometimes get upset by different noises or when they are touched by people.	**100% (*n*=49)**	0% (*n*=0)
All students with autism can talk well.	4% (*n*=2)	**96% (*n*=47)**

Most students with autism prefer to play on their own.	**76% (*n*=37)**	24% (*n*=12)
Some students with autism move their body in unusual ways (e.g. flap their hands).	**94% (*n*=46)**	6% (*n*=3)
Many students with autism spend lots and lots of time on specific activities or things that interest them (e.g. Tom spends hours and hours playing with his train set).	**98% (*n*=48)**	2% (*n*=1)
Many students with autism don't make friends.	**43% (*n*=21)**	57% (*n*=28)
Some students with autism repeat words or phrases that they have heard over and over again.	**98% (*n*=48)**	2% (*n*=1)
Students with autism usually enjoy playing games with other children.	33% (*n*=16)	**67% (*n*=32)**
All students with autism are good at making friends.	4% (*n*=2)	**96% (*n*=47)**
All students with autism generally like to share their interests or enjoyment in activities with other people.	35% (*n*=17)	**65% (*n*=32)**

Note. *n* = sample size; bold indicates correct answer

Educators as Mandated Reporters of Child Abuse and Neglect: A Survey of Current Practices and Recommendations Toward Best Practices

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Abstract: While public schools assume more and more responsibility for children in the face of continually diminishing resources, it seems that families continue to abdicate their role in the raising of children. Empirical evidence supports this trend and therefore it seems imperative that school personnel take seriously this expanded responsibility even if they do not want to do it. Since the school has assumed the role of the child's nourisher and protector as well as educator, then school personnel have become the font line of defense against children being neglected, abused, or both, by their parents, caretakers, or other members of their families. Mandated reporters frequently operate under the impression that before they report a situation of neglect or abuse they must have evidence that would stand on its own in court. Careful reading of the state statutes mandating reporting should immediately dissuade them from this faulty and sometimes dangerous impression. This study examines perceived levels of awareness and preparedness of Teacher Education majors at a Mid-west university regarding the role of mandated reporter.

Introduction and Review of Literature:

A current common lament heard from educators throughout the United States is that the public school is expected to assume more and more responsibility for the child in the face of continually diminishing resources. To those voicing these concerns it seems that the family has abdicated its role of raising children and turned it over to the public school systems of this country. Empirical evidence supports this trend and therefore it seems imperative that school personnel take seriously this expanded responsibility even if they do not want to do it.

If schools have assumed the role of the child's nourisher and protector as well as educator, then school personnel have become the font line of defense against children being neglected, abused, or both, by their parents, caretakers, or other members of their families. The present study seeks to measure perceived levels of preparedness of teacher education majors at a university in the Midwest. The researchers plan to continue and expand the study by replicating procedures with other similar teacher education programs.

Greener and Thurlow incorporated the issue into a much more comprehensive study in 1982 by measuring the extent to which 148 teachers felt that their training programs prepared them to teach students with special needs. A questionnaire was developed to ascertain whether teachers were able to carry out responsibilities mandated through the passing of Public Law 94-142.

Respondents were asked to rate their overall preparation and training in five areas: methods, materials, child and adolescent development and psychology, reading, and mainstreaming. The teachers also rated their preparation for recognizing and handling students having problems with drugs, abuse, learning disabilities, and emotional disturbances. Teachers were asked to suggest major changes that should be made in teacher training programs. Analyses of results were conducted and grouped according to: (1) years of teaching experience; (2) location of training--in Minnesota or elsewhere; and (3) training at public or private institutions. Although most teachers gave good or fair ratings overall to their training programs, poor ratings appeared with great frequency in the areas of reading, mainstreaming, and recognizing students with specific problems. Ratings by teachers with less than five years of experience indicated they were more satisfied with their training than were teachers with 10 or more years of experience, (Greener, 1982.)

Mandated reporters frequently operate under the impression that before they report a situation of neglect or abuse they must have evidence that would stand on its own in court. Careful reading of the state statutes mandating reporting would immediately dissuade them from this faulty and sometimes dangerous impression. For example, Kansas Statutes Annotated 38-1522 clearly says that teachers, school administrators, or other employees of the child's school shall report neglect or abuse if they have "reason to suspect" that either or both have occurred. "Reason to suspect" covers everything from concrete evidence to a good faith professional opinion.

In her 2006 study Arbolino reported that since child abuse awareness has increased over the past few decades, and especially within educational systems, teachers are mandated across the United States to report suspected child abuse. As a result, some states have instituted mandatory training to provide school staff with information regarding issues, policies and procedures related to child abuse reporting. She found little research on training effectiveness, impact and maintenance. Two studies examined the effects of child abuse mandated reporting on teachers without prior training. The first study examined effects of a training compared with a no training group. The second study replicated these results and examined effects of multiple exposures to the measures. Participants were teachers in a Masters Program in Education and were randomly assigned to groups. In the first study, both groups received a pre-test, the training group received a training and post test one week later and then both groups received a two month maintenance assessment. In the second study, one group received a pre-test, one week later both groups received training and an immediate post test and then both groups received a two month maintenance. In both studies, teachers assigned to training showed significant gains in knowledge, skill and reporting confidence as compared to controls. Additional exposure did not demonstrate initial effects but may have impacted maintenance. Finally, the bulk of these gains were maintained two months after training. Arbolino concluded that the studies provided preliminary support for the effectiveness of child abuse training, (Arbolino, 2006).

Goldman (2009) reported that many regional and local Departments of Education in many countries now require their primary school teachers to be mandatory reporters of child sexual abuse. However, many student-teachers are not provided with courses on child protection and its policy requirements during their pre-service university education. The study examines a university cohort of final 4th year bachelor of education primary school student-teachers, asking them to identify and clarify the nature of any relevant professional information they accessed over the 4 years of their teacher education. The results show that, in the absence of formal child protection courses, such professional information was scarce and sporadic. Student-teachers consistently indicated a pattern of not learning about essential Department of Education policies

and procedures in teacher education programs. Goldman suggests that these results, although disappointing, provide a rationale for university curriculum planners to design appropriate pre-service university training courses that initiate, develop, and enhance student-teachers' professional competencies as mandated reporters of child sexual abuse, (Goldman, 2009).

Anderson (1993, 2013) reports on a practicum that was designed to assist a private college in maintaining accreditation with the state of Washington in producing certified teachers with training in the identification and reporting of child abuse and neglect. Teachers and counselors are recognized as court mandated reporters of child abuse and neglect, but prior to the implementation of this practicum, no training in this area had been provided through the department of education at the college. A new state law went into effect during the implementation of the practicum requiring that all certifying teachers prove adjudicated coursework in child abuse and neglect. An approved syllabus was developed for an undergraduate course that included a substantial component on child abuse training, and for a graduate course specifically dealing with identifying and reporting child abuse and neglect within the school context. The courses were taught to undergraduate and graduate students. Analysis of pre- and post-tests revealed that, initially, graduate students in counseling were no better prepared to identify or report child abuse and neglect than were undergraduate education students. Both groups improved in understanding and skill during the course enrollment. Both groups were taught to fulfill their roles as court mandated reporters, and the teacher trainees met the new state requirements for certification by taking either course, (Anderson, 1993 and 2013).

In his book *Becoming a Teacher* (2013), Parkay focused on the role of schools in today's society. Are schools responsible for the promotion of prosocial values and the socialization of the young? If the school is a reflection of society then Parkay suggests that there should be more focus on diversity. There should also be efforts to overcome the effects of poverty by enhancing the culture of the school and the culture of the classroom. Parkay asks, “What Are the Characteristics of Successful Schools?” He attempts to measures the success of efforts to improve school effectiveness and school improvement and concludes by addressing concerns about the social problems that affect schools and place students at risk, (Parkay, 2013).

In *Heads You Win, Tails I Lose: The Dilemma Mandatory Reporting Poses for Teachers,* Falkiner, et al., (2017) note that Australian teachers are mandated to report instances of child maltreatment should they suspect a child is being maltreated. Some teachers are reluctant to make a report based on suspicion alone. The review examines the barriers that may prevent teachers from reporting. It is suggested that to overcome these barriers and form a reasonable belief that a child is being maltreated, teachers may attempt to seek out proof by questioning the suspected victim. Inappropriate questioning can have detrimental consequences such as wrongful reporting when maltreatment is not occurring, or worse, no report made when a child is being maltreated. Based on their review of the literature and given the changing landscape of mandatory reporting in Australia, more research is recommended. First, to determine if the barriers for reporting still hold true and, secondly, to establish the motivations of teachers who may question a child when they suspect maltreatment, along with exploration on how they approach this task, (Falkiner, 2017).

The mistreatment of children continues to be a malady affecting individuals and families. Investigations by child protective services increased from 2011 to 2015 by 9%, 3,081,000 to 3,358,000 (U.S. Department of Health and Human Services, Administration on Children, Youth, and Families, 2018). The investigations led to a substantiation of abuse and neglect, resulting in 683,000 victims, an increase from 2011 of 3.8% of child victims of abuse and neglect. Most of

these children were neglected, 75%. Seventeen percent were abused physically and 8% were abused sexually.

Efforts to stem the increase of child abuse and neglect have ranged from interventions focused on child victims, caregivers perpetrating the abuse and neglect, and the professionals involved with the families (Pecora et al., 2012). These strategies to halt the increase of abuse and neglect include strategies for professionals in identifying children in need of intervention.

It has been estimated that four out of five persons serving time in prison came from abusive and neglectful homes, and that the majority of adults who abuse and neglect children were abused and neglected themselves, (Zastrow, 1990). If this cycle is to be broken, there must be commitment from not only individuals but also from society's institutions. The school must take the lead because, like it or not, it is the one institution that plays a mandated role in almost all children's lives. It has the frequency of contact with the child to be able to recognize if neglect and/or abuse is taking place, and it has the professional expertise to know what to do about it.

There appears to be limited research on this pressing issue even though there is lots of research on child abuse and neglect in general. Most of the literature focuses on details specific to particular locations, such as laws on mandated reporting and definitions that categorize the differences in each level or type of child abuse. These include maltreatment, neglect, physical, emotional, and sexual abuse. The present study seeks to identify current practices within teacher education programs to prepare future teachers for the role of mandated reporter. Surveys of teacher education majors provide this much needed information. These researchers conclude that this an urgent matter. Lives and livelihoods are at stake.

Methodology:

The purpose of the study was to investigate the self-reflective responses of teacher education students about the education of mandated reporting and child maltreatment in teacher education. Approval was received from the Institutional Review Board of a regional Midwest university. The participants were eligible if they were current students or recent graduates, 1 to 2 years, from the education department of a regional Midwest university. Eligible participants were invited by their education department to complete a 27-question survey on mandated reporting and child maltreatment. The survey was a mix of demographic and qualitative responses. The survey was adapted from the "Mandated Reporting and Child Maltreatment: Training and Experiences of Minnesota Teachers Survey" (Butts, 2014). Informed consent was provided to all of the participants of the study. The consent detailed information about procedures, benefits and risks of participating, explained the participation is voluntary, and provided contact information for the researchers.

The survey was distributed electronically and dispersed using a convenience sample to the total population of current and recent students of the Midwest university. The survey included demographic questions about current and intended employment in teacher education, geographic areas of location, description of education on child maltreatment and mandated reporting, and educational areas marked for improvement. Additional qualitative questions were included in the survey inquiring about the steps to filing child abuse and neglect and mandated reporting, understanding of the mandated reporting process, and the opportunity to express needs for additional training. A total of 51 participants were included in this research.

Data Analysis:

To explore the research question: "How do teacher education students and recent graduates understand the reporting of child abuse and neglect?" the participants were asked what steps are required to file a child abuse and neglect report. The research question, "How do teacher

education students and recent graduates understand the post-reporting process?" was explored by asking participants to describe their understanding of the abuse and neglect reports after the initial report has been made. The research question, "How do teacher education students and recent graduates self-identify the need for additional mandated reporting and child maltreatment?" was answered by asking the participants to provide additional training needs.

Responses to the open-ended questions were coded using content analysis (Lune & Berg, 2017). Themes were generated based on the participant open-ended responses. Initially all of the responses (n=51) were read by the all of the researchers, providing an overview to the data. Researchers reviewed the manifest content and independently found themes using thematic analysis. Next, the responses were all reviewed together by the researchers to classify responses into common themes and to develop consensus on the grouping of individual participant responses. Specific words were identified and counted. The counts were then compared to other identified words. Differences in the counts by researchers were resolved through the group process. Finally, the researchers together grouped word and phrases with similar meanings to develop a representation for the findings from the data. Microsoft Excel was used to represent demographic findings from the data.

Findings:

The total sample size of participants was 51 and was completed over one month. The collected sample was predominately female (80.3%) and has an average participant age of 21.2 years, with a standard deviation of 4.38. Most of the participants (98%) were still in a teacher education program at a regional university. Table 1 has additional detailed information about the characteristics of the sample.

SEE TABLE 1

Participant responses showed most of the participants had little experience as a teacher or student teacher with making a mandated report due to child abuse or neglect. Only one of the participants (2.4%, n=41) had completed a mandated report. The rest of the participants (97.6, n=41) had yet to make their first report. Even though most of the participants had no experience in reporting, 52.9% (n=51) of the participants felt prepared. Table 2 has additional details about participant responses about reporting.

SEE TABLE 2

In general, most of the participants felt prepared in their training from higher education on how to deal with cases of child abuse (54% felt very prepared or somewhat prepared). There were still 12% of participants that reported higher education left them feeling very unprepared for dealing with child abuse. The majority of participants (above 50%) felt aware of all of the signs of abuse and neglect. The signs of child sexual abuse showed the lowest level of sign awareness (13.7% disagreed or strongly disagreed). Table 3 details additional information about the participant responses about child abuse and neglect.

SEE TABLE 3

During the analysis of the open-ended questions, some themes became apparent. Reponses to the question "What are the steps you would take to file a child abuse and neglect report?" had the following themes. The most common response was no knowledge or confusion about the steps for reporting child abuse and neglect. Examples of the responses included, "I don't know," "Call CPS? I have no idea," "I know there is paperwork I would need to fill out. I am not sure what the procedure for specific schools would be," and "no clue." Another theme identified in the responses was to make the report to another school staff member. These responses included, "Speak to the school counselor or social worker and ask them to guide me in the right direction," "Inform counselor," "Approach the school counselor about it," "Type my reasons or concerns,

meet with principal, if he/she is concerned contact the appropriate party," and "Let your principal know about the situation and take the necessary measures to keep the child safe."

The thematic analysis of the question "What happens after child abuse and neglect has been reported?" had the following themes. One of the themes identified after a report has been made and investigation takes place. The following are examples of these responses, "I have no idea, I would assume it gets investigated," "An investigation could be started as well as a court hearing. That could lead to the child/family being put in protective services," and "An investigation will occur to further see what may or may not be occurring." The other theme identified was no knowledge or confusion about the process after a report of child abuse and neglect. Examples of responses that indicated this theme were, "I don't know," "Unsure," and "No idea."

The question "Would you like more training about mandated reporting procedures and child maltreatment? Please explain your answer from the previous question," resulted in the following theme. Participants identify more education and training about both reporting procedures and understanding child maltreatment. Examples of these responses include, "I have no clue what this reporting stuff is even about," "Haven't had much experience out in the field or in education major classes," "There is never enough information on these topics," and "I feel as though the college of education has not prepared myself or my classmates for reporting of any kind. We also never discuss how to work with children trauma or neglect and I believe that his is crucial to cover for future teachers. However, we continue to discuss curriculum and statistics instead of how to work with children in this manner."

Limitations:

The current study is obviously limited to one teacher education program but the researchers plan to expand the study to include more programs. The geographic constraints may or may not contribute to the effectiveness of the particular teacher education program. The surveys were administered during the summer semester. That may or may not have affected the results of the study. The surveys were administered online. Again, that may or may not have affected the results of the study. The researchers are very aware of the implications and potential limitations of the present study. Nevertheless, the findings support the original hypothesis and seem consistent with similar studies in other areas leading the researchers to feel confident with the results of the current study.

Conclusions and Recommendations:

Based on the findings of the current study the researchers conclude that concerns about the perceived preparedness of teacher education majors for the role of mandated reporter is indeed an important, even urgent, matter that must be explored in future research. The findings are encouraging with regard to overall satisfaction with the teacher education program but they also call for increased efforts to emphasize the importance of specific focus on the dissemination of information to teacher education majors as they prepare to become mandated reporters. Additionally, thematic analysis indicated practical information and experiential learning would assist the participants in becoming adept in both mandated reporting and signs of child abuse and neglect. The ongoing trend that places the school in the role of the child's nourisher and protector as well as educator, leaves no choice but for school personnel to assume the front line of defense against children being neglected, abused, or both, by their parents, caretakers, or other members of their families.

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Table 1. *Sociodemographic Characteristics of the Sample (n=51)*

Variable	Percentage	n
Gender (n=51)		
Female	80.4	41
Male	19.6	10
Education (n=51)		
Freshman	13.7	7
Sophomore	25.4	13
Junior	23.5	12
Senior	35.3	18
Bachelor's Degree	1.9	1
Planned Area of Teaching (51)[a]		
Elementary	52.9	27
Middle School	21.5	11
High School	25.4	13
Other	11.7	6
Planned Teaching Role (51)[a]		
Classroom Teacher	76.4	39
Mainstream Education	11.7	6
Special Education	29.4	15
Specialist	7.8	4
Substitute	9.8	5
Other	5.8	3
Planned Geographic Area of Teaching (50)[ab]		
Suburban	41.1	21
Rural	41.1	21
Urban	27.4	14

Note: [a]Participants could choose more than one answer leading to a sum of percentages greater than 100.
[b]Sample sizes are different on each variable due to missing data.

Table 2. *Participant Responses about Mandated Reporting (n=51)*

Variable	Percentage	n
How prepared do you feel in your role as a mandated reporter? (n=51)[a]		
Very prepared	17.6	9
Somewhat prepared	47.1	24
Neither prepared nor unprepared	21.6	11
Somewhat unprepared	7.8	4
Very unprepared	5.9	3
Where did you get most of your information about your role as a mandated reporter (n=50)[ab]		
Higher Education (College/Univ.)	56	28
Student Teaching	4	2
Personal Experience	50	25
Personal Research	22	11
Professional Development	18	9
Other	22	11
How much do you agree with this statement? When I was a student teacher, I was aware of my school's procedures for child abuse reporting. (n=34)[b]		
Strongly agree	11.8	4
Agree	32.4	11
Somewhat agree	29.4	10
Somewhat disagree	5.9	2
Disagree	5.9	2
Strongly disagree	14.7	5
How do you feel your higher education (university or college) has trained you for your responsibilities as a mandated reporter? (n=49)[b]		
Very good	16.3	8
Good	24.5	12
Fair	44.9	22
Poor	8.2	4
Very poor	6.1	3

Note: [a]Participants could choose more than one answer leading to a sum of percentages greater than 100.
[b]Sample sizes are different on each variable due to missing data.

Table 3. *Participant Responses about Child Abuse and Neglect (n=51)*

Variable	Percentage	n
How do you feel your higher education (university or college) training has prepared you to deal with cases of child abuse? (41)[b]		
Very prepared	9.8	4
Somewhat prepared	44	18
Neither prepared nor unprepared	34.1	14
Somewhat unprepared	0.0	0
Very unprepared	12.2	5
I am aware of the signs of child neglect. (n=51)		
Strongly agree	19.6	10
Agree	41.2	21
Neutral	27.5	14
Disagree	7.8	4
Strongly disagree	4	2
I am aware of the signs of child physical abuse. (n=51)		
Strongly agree	25.5	13
Agree	56.9	29
Neutral	11.8	6
Disagree	3.9	2
Strongly disagree	2	1
I am aware of the signs of child sexual abuse. (n=51)		
Strongly agree	15.7	8
Agree	39.2	20
Neutral	31.4	16
Disagree	5.9	3
Strongly disagree	7.8	4
I am aware of the signs of child emotional abuse. (n=51)		
Strongly agree	13.7	7
Agree	51	26
Neutral	25.5	13
Disagree	5.9	3
Strongly disagree	3.9	2

Note: [a]Participants could choose more than one answer leading to a sum of percentages greater than 100.
[b]Sample sizes are different on each variable due to missing data.

Midwest Elementary School Principals and the Use of Social Media

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Abstract
The purpose of this mixed-methods study was to examine the use of social media among elementary school principals in Minnesota. It was part of a dissertation study conducted at Bethel University (Hill, 2016). The survey collected data from elementary school principals across the state of Minnesota gathering demographic information on age, years of service, presence of a district social media policy, gender, school location, school size, and school poverty level as defined by its free and reduced lunch rate. As a result of the study, it was found that a negative relationship exists between the number of years of service from an elementary school principal and their use of social media. Age, gender, school location, school size, and poverty level have no relationship with a principal's use of social media tools. A qualitative analysis was run on one open-ended question on the survey to determine its themes. Facebook was found to be the most popular tool for sharing information with friends and family while Twitter was cited as the most popular social media tool for professional development.

Introduction
Search the Internet and one quickly finds news stories reporting that Facebook now has over a billion users (Associated Press, 2012). YouTube has 4 billion visits daily (Wasserman, 2012) and Twitter posts 50 million tweets every 24 hours from its 175 million registered users (Golijan, 2013). It is now estimated that 93% of the people who live in the United States and own smartphones are using them as their primary device to access the Internet and communicate with others.
People from every generation are reported to utilize social media tools, but it is those who occupy the Millennial generation, that is, those who are 18–33 years old who are spending the most time online (Zickuhr, 2010, p. 2). In 2010, Hepburn gathered information on the demographics of Twitter users in the United States. He found that 47% were parents of children who attend school.
Consequently, many members of this generation are the parents of today's elementary school students. It is members of this cohort who are changing the way information is disseminated. Porterfield and Carnes, (2012) authors of *Why Social Media Matters: School Communication in the Digital Age* cited several distinctions in the way the Millennials and Generation X (those born between 1961 and 1981) prefer to communicate about their children with educators. Parents want to receive information as it happens, preferring to be updated continually as the day progresses instead of after the fact. Additionally, parents want to be directly involved in their child's education, and social media can be seen as a way to build a strong, transparent bridge of communication between home and school.
Conversely, research shows that many educational leaders are not as enthusiastic. According to Porterfield and Carnes (2012), the American Association of School Administrators (AASA) surveyed its members in 2009 and found that 20% were using social mediums to communicate. AASA conducted a focus group with superintendents two years later to determine their feelings towards social media. The study found, "superintendents wanted nothing to do with social media. They found it dangerous and intrusive" (pp. 6–7).

Research Questions

The purpose of this study was to understand the use of social media by elementary principals working in Minnesota public schools. Two main research questions were addressed:

- What factors impact elementary principal use of social media for professional purposes?
- How are elementary principals utilizing social media to communicate?

Research Method and Design

Based on the work of Schmucki, Hood, and Meell (2010), this study was a mixed-method approach employing the use of a Qualtrics Survey to ask elementary school principals about their use of social media tools. There were 922 elementary school principals who were emailed a link to complete this survey during a 2-week timeframe. Exactly 145 principals chose to respond. This resulted in a response rate of 15.7%.

The majority of questions were quantitative in nature in order to gather demographic information about the school leaders being surveyed and the schools they serve. Quantitative questions were also asked about the number and nature of social media tools that were being used.

In order to gather additional information, respondents were given the opportunity to respond to open-ended questions about their social media use. These questions were designed to gather in-depth information, determine trends across respondents, and provide an explanation for the quantitative responses given. Quantitative data was analyzed using statistical tests available in the most current version of Statistical Package for the Social Sciences (SPSS).

Qualitative data was analyzed by pasting open ended responses from the survey into an Excel document. Qualitative responses were read through a minimum of six times following the steps for qualitative analysis outlined by Taylor-Powell and Renner (2003) in order to determine their meaning. The initial reading was of all open-ended responses given in the survey to gain an overview of the information provided from the data. Initial impressions from the first reading were recorded on paper for future reference.

During the second reading, meaning units were recorded for each open-ended response and recorded in a column in the spreadsheet. The third reading involved coding the data. Saldana (2009) stated "To codify is to arrange things in a systemic order, to make something part of a system or classification, to categorize" (p. 8). Each unique meaning unit was assigned a code next to ideas or themes that were found within the text of the responses. During the subsequent fourth and fifth reading, it was determined if codes can be combined, separated, or placed into subcategories. The sixth read was to determine if the themes that emerged have sufficient supporting data to be identified as an independent theme. Additional reads were necessary in order to attain precise findings.

Finally, to ensure reliability of findings, interrater reliability was conducted. An additional person with background knowledge in schools and technology read through the data analysis. Discussion ensued until analysis.

The dependent variable in the survey was the categorical use of social media. All independent variables were either one independent variable with two levels of independent groups (e.g., gender, urban/rural setting) or one independent variable with two or more levels of independent groups (years of service, size of school, and age of principal.) Therefore, the Chi-Square Analysis was an appropriate statistical test to determine if a statistically significant relationship existed. Chi-Square analyses were run to test all five hypotheses.

The researcher attained approval from the Institutional Review Board prior to beginning her research to ensure that all activities were carried out in an ethical manner. All participants were given an informed consent document to review in the body of the email that was sent above the survey link indicating their understanding of the risks and benefits involved in the study, along with their voluntary agreement to participate. Finally, no names of principals, names of schools, or any other identifiable characteristics were collected, except for necessary demographic information. All responses were kept anonymous and confidential. Results and hypothesis are summarized in Table 1.

Respondents were asked an open-ended question to gain further insight about the use of social media. "Please share how you are using social media tools in new and innovative ways as an administrator." Of the 145 members of the sample, 63 responded. Themes are analyzed below.

School Promotion

"We use social media to send out announcements, to keep our community informed about exciting things that are taking place in our school."

School promotion was one of the four main themes emulating throughout the responses to how social media is being used in new and innovative ways as an administrator. One person wrote, "Facebook as the 'new' newsletter provides an opportunity to create and build culture and tell a school story (mission/vision connections with programming)." Principals are looking to harness the convenience and widespread availability of social media to tell others about their schools. Fourteen different statements fell into this category out of 63 for a total of approximately 22% of the responses. In this category, key words were used such as "communication and PR," "promotion," "fundraising," and "community members."

Sharing Information with Student's Family Members

"I find putting the info into the parent's hands is important. Any tool I can use that makes it go to the parent without having them have to go someplace else is my key."

Sharing information with students' family members was the second theme that emerged in this analysis. The word "families" was discussed at length between the researcher and the objective analyzer. At the elementary level, students may utilize information posted via social media through their parents. For example, if a due date of an assignment is listed or the date of an upcoming field trip, a parent or guardian may pass this information on to their child. It can also be noted that an elementary student may not live with parents or find that some information posted via social media is relevant to siblings, grandparents, or other extended family members. Therefore, the phrase, "student's family members" seemed to encapsulate all interested parties. Seventeen or 27% of all responses fell into this category. Key words or phrases included, "students and families," "information sharing," and "communicate with parents."

Contact or Meetings with Staff Members or District Administrators

"I use Google docs to collect teaching evidence in the classroom. Google+ for meetings with admin in other buildings…"

It became evident when analyzing the data that elementary school principals were using social media to communicate professionally both with the staff members in their school and other district administrators. This was sometimes happening through formal meetings. Participants made mention of both "Google+" and "Google Hangout" for this purpose. Communication was also happening through more informal methods such as a casual tweet. Two responses mentioned the use of Twitter during staff meetings, and one mentioned uploading a YouTube video for teachers to watch as part of their observation. Seven responses fell into this category or just over 11% of all responses. Key words included, "staff meetings," "teacher walk-throughs," "PLCs," and "meetings with admin."

Learning/Professional Development

"Twitter is hands down one of the best PD forums on the market today. It is heavily utilized."

Principals are either using social media tools in this category to learn something professionally about leadership, or to pass on instructional resources or knowledge to their teachers. One participant said, "I use Twitter to connect with my colleagues professionally." Another respondent added, "…for viewing current articles." In regard to passing ideas on to teachers, one principal said they are using Twitter, "to collect/share innovative ideas to enhance the student learning experience. (i.e., get the latest information and perspectives on current best practice, innovative tools, modular robotics, 3D printing, to crowd-source funding for digital technologies, etc.)." Not only are teachers and students given access to best-practice ideas, but their leaders are staying informed as well. Eleven, or 17.4% of responses fell into this

category. Key words or phrases included, "professional development," "educational conversations," "connect with colleagues," "Twitter chats," and "leadership forums."

Conclusions

Overall, demographic factors had little impact on a principal's choice of using social media to communicate. Based on experience in the field, it was expected that a negative relationship would exist between a principal's years of service and their use of social media. Meaning, the longer they have served as principal, the less likely they are to use social media. It was found that this negative relationship generally exists. As the years of service increased, the use of social media decreased. Principals serving 1–5 years represented 46.2% use of social media; principals serving 6–10 years represented 24.8% of the sample population, and those serving 11–15 years represented 13.1% of the sample population. The overall total percentage of principals who have served 16 years or more and use social media was 15.9% as compared to their counter parts. This is 2.8% more than those serving 11–15 years, and the only exception found in this trend.

The rest of the demographic factors: gender, school setting, school size, and school poverty percentage, showed no statistically significant relationship towards the use of social media by the principal. These results are consistent with the findings in McCutcheon's (2013) dissertation on *The Use of Social Media as a School Principal.* There is no suggestion that such a relationship exists.

This study did provide interesting insight into the second research question, "How are principals using social media to communicate?" The survey found that of the 145 respondents to the survey, the majority of principals are using social media at a reported rate of 78.6%. When asked what social media sites that principals were active members of, the top three were Blogger (65.5%), Vimeo (51.7%), and Pinterest (47.6%). These responses were not consistent with the public's marked saturation of Facebook, Twitter, and YouTube.

Recommendations for Further Research

While this study focused solely on school principals and their use of social media, further studies could be conducted to determine how teachers and students are using such tools and if their methods and motivations differ from those in school leadership positions. When analyzing the qualitative data for this study, this comment was made by one principal, "I use Twitter to host and moderate educational conversations (PD) and to collect/share innovative ideas to enhance the student learning experience." With over 80% of junior high students owning a mobile device according to Rideout et al. (2010), it would appear that there is room to discover how social media is impacting professional development and how it can be utilized by both teachers and students to "enhance the learning experience."

Parents are another population that could prove worthwhile to study when considering the educational use of social media. Porterfield and Carnes (2012) argue that when it comes to communication, "Today's parents refuse to be shut out of the education process" (p. 6). When principals in this study were asked how they were using social media, ten of them mentioned the use of social media to communicate with parents, wanting to share information with them whether through text, pictures, or video. Further study could be used to explore how to strengthen communication between home and school through the use of social media.

Table 1
Hypotheses

Hypothesis	Result
1st Null Hypothesis: There is no relationship between the age of the principal and use of social media to communicate. 1st Alternative Hypothesis: There is a relationship between the age of the principals and the use of social media to communicate.	χ^2 (6, N = 142) = 12.495, p = .052 (two-sided). *p>.05* so we can accept the null hypothesis that there is no relationship between the age of the principal and use of social media to communicate.
2nd Null Hypothesis: There is no relationship between years of experience being an elementary principal and the use of social media. 2nd Alternative Hypothesis: There is a relationship between the years of experience being an elementary principal and the use of social media.	χ^2 (3, N = 145) = 15.327, p = .002 (two-sided). *P<.05* so we can reject the null hypothesis that there is no relationship between years of experience being an elementary school principal and use of social media to communicate. We can accept the alternative hypothesis that there is a relationship between the years of experience being an elementary school principal and the use of social media to communicate.
3rd Null Hypothesis: There is no relationship between the gender of the principal and use of social media to communicate. 3rd Alternative Hypothesis: There is a relationship between the gender of the principals and the use of social media to communicate.	χ^2 (1, N = 144) = .216, ns. p = .642 (two-sided). *p>.05* so we are unable to reject the null hypothesis. There is no relationship between elementary school principal gender and use of social media to communicate.

Hypothesis	Result
4th Null Hypothesis: There is no relationship between the setting of the principal's school location (metro or outstate) and use of social media to communicate. 4th Alternative Hypothesis: There is a relationship between the setting of the principal's school location (metro or outstate) and the use of social media to communicate.	χ^2 (2, N = 145) = 5.198, ns. p = .074 (two-sided). *p>.05* so we are unable to reject the null hypotheses. There is no relationship between elementary school principal's school location and use of social media to communicate.
5th Null Hypothesis: There is no relationship between principal's school size and use of social media to communicate. 5th Alternative Hypothesis: There is a relationship between principal's school size and the use of social media to communicate.	χ^2 (2, N = 144) = 1.861, ns. p = .394 (two-sided). *p>.05* so we are unable to reject the null hypotheses. There is no relationship between elementary school principal's school size and use of social media to communicate.
6th Null Hypothesis: There is no relationship between principal's school poverty percentage (as defined by free and reduced lunch percentage) and the use of social media to communicate. 6th Alternative Hypothesis: There is a relationship between principal's school poverty percentage (as defined by free and reduced lunch percentage) and the use of social media to communicate.	χ^2 (3, N = 144) = 5.466, ns. p = .141 (two-sided). *p>.05* so we are unable to reject the null hypotheses. There is no relationship between elementary school principal's school poverty percentage as defined by its free and reduced lunch rate and use of social media to communicate.

Hypotheses

Hypothesis	Result
1st Null Hypothesis: There is no relationship between the age of the principal and use of social media to communicate. 1st Alternative Hypothesis: There is a relationship between the age of the principals and the use of social media to communicate.	χ^2 (6, N = 142) = 12.495, p = .052 (two-sided). *p>.05* so we can accept the null hypothesis that there is no relationship between the age of the principal and use of social media to communicate.
2nd Null Hypothesis: There is no relationship between years of experience being an elementary principal and the use of social media. 2nd Alternative Hypothesis: There is a relationship between the years of experience being an elementary principal and the use of social media.	χ^2 (3, N = 145) = 15.327, p = .002 (two-sided). *P<.05* so we can reject the null hypothesis that there is no relationship between years of experience being an elementary school principal and use of social media to communicate. We can accept the alternative hypothesis that there is a relationship between the years of experience being an elementary school principal and the use of social media to communicate.
3rd Null Hypothesis: There is no relationship between the gender of the principal and use of social media to communicate. 3rd Alternative Hypothesis: There is a relationship between the gender of the principals and the use of social media to communicate.	χ^2 (1, N = 144) = .216, ns. p = .642 (two-sided). *p>.05* so we are unable to reject the null hypothesis. There is no relationship between elementary school principal gender and use of social media to communicate.

Hypothesis	Result
4th Null Hypothesis: There is no relationship between the setting of the principal's school location (metro or outstate) and use of social media to communicate. 4th Alternative Hypothesis: There is a relationship between the setting of the principal's school location (metro or outstate) and the use of social media to communicate.	χ^2 (2, N = 145) = 5.198, ns. p = .074 (two-sided). *p>.05* so we are unable to reject the null hypotheses. There is no relationship between elementary school principal's school location and use of social media to communicate.
5th Null Hypothesis: There is no relationship between principal's school size and use of social media to communicate. 5th Alternative Hypothesis: There is a relationship between principal's school size and the use of social media to communicate.	χ^2 (2, N = 144) = 1.861, ns. p = .394 (two-sided). *p>.05* so we are unable to reject the null hypotheses. There is no relationship between elementary school principal's school size and use of social media to communicate.
6th Null Hypothesis: There is no relationship between principal's school poverty percentage (as defined by free and reduced lunch percentage) and the use of social media to communicate. 6th Alternative Hypothesis: There is a relationship between principal's school poverty percentage (as defined by free and reduced lunch percentage) and the use of social media to communicate.	χ^2 (3, N = 144) = 5.466, ns. p = .141 (two-sided). *p>.05* so we are unable to reject the null hypotheses. There is no relationship between elementary school principal's school poverty percentage as defined by its free and reduced lunch rate and use of social media to communicate.

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Student Preference of Problem-Based Learning in Teams

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Abstract

Empirical data from this study supports the use of a problem-based learning (PBL) within team-based learning (TBL) classroom environment as an effective and preferred teaching tool in large-lecture general education courses. Using a cross-sectional mixed-methods exploratory approach, researchers examined retrospective, college student (n = 103) self-reported cognitive and social development outcomes and preferences from two sections of a 100-level personal and family living course. Quantitative and qualitative findings from this study indicate that students report favorable cognitive and social outcomes in terms of overall experience, comprehension, critical/creative thinking, gained insights, social skills, and conflict management when compared to traditional lecture-style courses. Findings from this study may inform course structure and delivery.

Keywords: problem-based learning, team-based learning, scholarship of teaching and learning

Problem-based learning (PBL) and team-based learning (TBL) have emerged as valid and engaging teaching models for the 21st century classroom. Recent empirical data from medical-school programs (Dolmans, Michaelsen, van Merriënboer, & van der Vleuten, 2015) supports the combination of both PBL and TBL as an engaging, innovative, and effective model for higher education. This current study sought to understand the perceived social and cognitive impact of a combined PBL and TBL model for general education students when comparing traditional, lecture-style models.Problem-Based Learning (PBL)

PBL has seen a significant increase in popularity in higher education, branching out to law, business, accounting, social work (Green & Wilks, 2009), and family sciences (Teemant, Harris, & Moen, 2012). PBL is a unique teaching methodology in that the instructor moves from a traditional expert and lecture role to that of a facilitator or guide (Worsley, 2007). PBL instructors create or use hypothetical, authentic, real-world

problems relating to the subject matter for students to solve. Students are given very little instruction beyond the given problem. Students typically work in groups or structured teams to solve problems, promoting social and cognitive development opportunities (Teemant, Harris, & Moen, 2012).

There is a large degree of creative freedom given to instructors as to the structure of PBL, thus providing flexibility and adaptability to course material/focus. For example, an instructor may choose to allow open resources (e.g., web-based information, textbook, notes, interviews) or to limit resources to specific parameters. Instructors may choose to have students work individually, in pairs, in groups, or with controlled and permanent teams (Michaelsen & Sweet, 2008). The idea of PBL is to promote student-centered learning through active information gathering and dissemination. Students obtain information from valid sources, summarize a solution to the problem, and report their findings to the large (whole) class. This fluid approach to learning can often spur new cognitive processes and higher-order thinking (e.g., Anderson et al., 2001; Bloom, Engelhart, Furst, Hill, & Krathwohl., 1956).

Combining PBL with Team-Based Learning (TBL)

PBL allows students to require and refine higher order thinking skills, problem-solving skills, self-regulated learning habits; all skills are necessary for working in today's business world (Dozier, 2015; Savery, 2006). The qualities that students learn through PBL can help students flourish in careers where these skills are necessary to accomplish group work. What would happen if we combined PBL scenarios while students worked in teams (i.e., TBL)?

According to Wilson (2014), TBL is an effective way to learn engagement, participation, discussion, and collaboration skills. These skills are important for students to develop in college because they benefit performance in future careers where teamwork is necessary. Concurrently, students who learn through PBL have considered themselves to have better interpersonal skills, better problem solving, self-directed learning and information gathering competencies, as well as stronger abilities to make efficient plans (Barrows, 1996; Schmidt, Vermeulen, & Van Der Molen, 2006). Previous research has found that cognitive and social development are promoted when real-world problems are confronted in social discussion (John-Steiner &Mahn, 1996). By combining PBL in teams (i.e., TBL), it is possible to promote a variety of cognitive and social developmental opportunities simultaneously (Dolmans, Michaelsen, van Merriënboer, & van der Vleuten, 2015).

Synopsis of TBL Structure

According to Sweet and Michaelsen (2012), TBL promotes critical thinking as well as student engagement, both desirable outcomes for students and instructors. This approach has been deemed effective in the social sciences. TBL structures the classroom into permeant teams of five to six students. Teams are randomly assigned by instructor method and upheld throughout the entirety of the semester. A series of team building activities may be implemented at the beginning of the semester to promote cohesiveness within teams and socially introduce teammates.

In structured TBL environments, students take an initial test called an individual readiness assessment test (IRA) (Sweet and Michaelsen

(2012). An IRA is a multiple-choice test on the day's reading materials. The individual test ensures that teammates are prepared for the course material ahead of class. Once individuals have completed the IRA, teams take a team readiness assessment test (TRA) comprised of the exact same test questions and options. Once complete, teams score both IRA and TRA tests using a provided answer key. IRA scores are graded based solely on individual performance. TRA scores offer a unique twist in that teammates provide instant feedback to each other on the level of performance provided by each individual team member. Meaning, if an individual was not prepared, their TRA score will be directly impacted negatively (i.e., lower score). Teams have the option to appeal questions on the quiz, leading to further discussion and depth. Instructors are encouraged to create questions that may have more than one correct answer or confounding themes within the question itself. The appeal process promotes a two-way learning and engagement process between students and instructor (Sweet & Michaelsen, 2012).

Social Skills Development

Many students, faculty, and employers state a need for social skill development in higher education (Boyles, 2012; Rosenberg, Heimler, &Morote, 2012; US Department of Education, 2006). Social skills, including role taking, group dynamic communication, problem-solving, conflict management, creative thought, and development of new perspectives are all identified as important developmental outcomes. As students enter the workforce, it is critical to possess adaptable social skills to promote sustainability/advancement of their careers and the betterment of the workplace environment (Boyles, 2012). Working in teams to decipher PBL scenarios hypothetically provides students opportunities to decide, discuss, create and evaluate new ideas, hence advancing their social skills.

Cognitive Skills Development

This study used Bloom's taxonomy of learning as guide for understanding cognitive development in the classroom (Bloom, et al., 1956). Specifically, this study looked at all six areas of learning: Remembering, Understanding, Applying, Analyzing, Evaluating, and Creating (Anderson et al., 2001). This study created four subcategories to explore the six dimensions of learning: Comprehension (i.e., Remembering and Understanding), Application (i.e., Applying), Critical Thinking (i.e., Applying and Analyzing), and Creative thinking (i.e., Evaluating and Creating).

Research Questions

Researchers hypothesized that when PBL is applied within TBL, scaffolding will occur. This hypothesis was characterized by two distinct research questions:

1. How do students' meta-cognitive, meta-knowledge, and meta-social skills differ when working with teams (i.e., TBL) vs. working individually in lecture-style classes?
2. How do students perceive their cognitive/social reflective experiences when working in a team versus working individually?

Method

The principal investigator for this study obtained Internal Review Board (IRB) approval to conduct research on human subjects. No identifiable information has been disseminated in the process of this publication.

Participants

Participants (n = 103) were recruited through convenience sampling at a Midwestern University in the PI's Family Consumer Science 100 Personal and Family Living course over two semesters (Fall 2017 & Spring 2018). During the 7th week of each (i.e., Fall 2017 & Spring 2018) semester, student participants were asked to complete a brief ten-minute online (i.e., Qualtrics) survey (see appendix 1) in class. Researchers read an applicable IRB statement about participant rights and procedures, then provided a link to the online survey. Participants were asked to answer questions about basic demographic characteristics, then a series of Likert-based questions comparing participant's retrospective views on using PBL learning in teams (TBL) versus standard/traditional classroom teaching models in terms of cognitive and social development. Additionally, participants were asked to provide qualitative data (a paragraph) explaining their overall experience solving problems while working with teammates. Participants were rewarded extra credit (≤1% of total points) in the course. FCS 100 Personal and Family Living is considered a large-lecture classroom. Demographics, shown in Tables 1 and 2, reflect expected findings in that most students identified as white, female, underclassmen.

(Table 1)

(Table 2)

Classroom Setting and Structure

This methodological subsection provides a step-by-step overview and layout of how the adapted model of PBL in teams was facilitated. It should be noted that there are slight adaptations made to standard PBL and TBL models. An online survey was conducted during the eight weeks of class.

Working in Teams. At the beginning of the semester, students were informed of the TBL process including what to expect, how to handle conflict, and how to contact fellow teammates. Teammates were encouraged to have accountability to their team. At the beginning of the class period on the first day of class for the week, students were given roles of: Writer, Speaker, Researcher, and Task Manager. Given there were five to six students per team, it was permissible to have multiple students in a similar role except for writer and speaker.

TRAs were given on the first day of the week's instruction (i.e., Tuesdays) and at the beginning of the class to ensure students were

prepared by having read the week's chapter reading prior to class. The textbook used was M&F4 by Knox (2018). Tests were paper based in Word format with thirty multiple-choice questions rather than the standard Immediate Feedback Form (Epstein, 2019) used in traditional TBL formats. An extended word document format was used as a preferred method due to length flexibility/updating of multiple-choice questions, and budget. Teams taking the TRA had 20 minutes to complete their test. Upon completion of the IRA, students were then instructed to grade their TRA.

Appeals. Once grading was completed, teams were given five minutes to discuss questions they may wish to appeal and their strategy for overturning a question. This process was encouraged by the instructor as new insights were gained in the appeal process.

Problem-Based Scenarios

The second day of class (i.e., Thursdays) started with a similarly structured 35-minute brief, open lecture. The final 35 to 40 minutes were spent using PBL scenarios in teams. The same structured teams used throughout the semester were kept for Thursday classes as well. A printed (Word document) set of PBL scenarios/questions were given to teams to work through. Teams may have used any information source they chose with the understanding that validity of sources can be challenged. Teams used the same roles assigned from the previous class (i.e., Tuesday). Roles changed every week starting on the Tuesday class. The instructor was available to answer questions for clarity. The final 10 minutes of class were used to discuss findings with the whole class. The speaker from each team had to be ready to present findings. The instructor went around the room and variably asked a set of three teams to participate to ensure participation. Questions varied based on the week's topic, corresponding with the textbook chapter for that week. An example PBL scenario may be, "Role Play: you work for a local organization as a family life educator, a local media outlet has asked you to explain the downturn in marriage applications for the county." Students must do their best to research what the expected role is in order to provide an accurate perspective. Students must also work together to come up with valid and cohesive answers based on their own perspectives, research, and theory. These answers were presented to the big group and were available for constructive comments by the class as well as the instructor. Teams were graded using an open rubric that measures observed participation, validity of answers, depth, application, and creativity.

Team Evaluations. The instructor for this study sought out to collect three team evaluations throughout the semester. Teams were given a printed (Word) team evaluation form to review and subsequently provide quantitative ratings with qualitative support. Teams were primed by the instructor on how to provide constructive feedback. The primer galvanized students to complete the team evaluation process. Team evaluation scores were substantial, consisting of 15% of the total grade for the course.

Dependent Measures

Student Retrospective Perception Survey

A cross-sectional mixed-method study was conducted using an online survey system (Qualtrics) to collect and store data. The survey

started with demographic questions such as major, academic year, gender, and race. The survey then asked three questions that assessed participants' retrospective perceptions of the PBL and TBL teaching method vs. traditional lecture classroom format using a five-point Likert scale. Finally, a qualitative experiential question was asked.

(Figure 1)

Analysis and Results

Demographics

The Statistical Package for the Social Sciences (SPSS) and Microsoft Excel software were used to analyze quantitative data. Demographic analysis resulted in expected results for FCS intro-level courses (see Table 1) as most participants/students were freshmen or sophomore, white, and female. A table for majors was not provided as twenty-nine different majors were represented along with undeclared students (11%). It should be noted however, that FCS 100 is a required course for FCS majors and thus, a majority (29%) of students enrolled in FCS 100 were FCS majors. There was also strong (9%) representation of Psychology majors who often minor in FCS.

Confirmatory Factor analysis: As an exploratory measure, researchers ran a confirmatory factor analysis and found three statistically reliable subscales on meta-cognition while working in teams: (a) individual work; (b) learning course concepts working in teams; and (c) learning and problem solving while working in teams. To measure for reliability (internal consistency between questions) this study reported Cronbach's Alpha (ά) scores of .89 or higher for all three questions (see Figure 1).

Meta-cognition self-report: Next, participants were asked to retrospectively rate their experience while working in teams using a five-level Likert scale that provided a range of answers (strongly disagree to strongly agree). All three items showed significant preferential support for working in teams (see Figure 1).

Independent sample t-Tests: Retrospective social and cognitive review of working in teams versus working individually: Seven, five-point Likert questions assessed the participants' retrospective perspectives on learning skills such as, comprehension, application, critical thinking, creative thinking, new perspectives, social skills, and conflict management, when PBL is applied within teams. The same set of questions were asked of students, but in relation to working as an individual in other courses (retrospectively). Respondents rated all seven cognitive/social reflective experiences significantly higher when working in a team versus individually, suggesting participants perceived (retrospectively) working in teams as a superior pedagogical model over individual classroom experiences in terms of social and cognitive development. Pierson correlations as well as effect sizes are reported. (see Table 3).

Qualitative Analysis. As a final question in the survey, participants completed a qualitative review question asking them to explain their overall experience solving problems (e.g., discussions, applications, etc.) while working with teammates. Most (98%) of the participants completed the qualitative survey question, providing at least a paragraph of information as requested in the survey. Of the responses

received, 76 responses were positively-valenced comments, with three negatively-valenced responses, and 22 neutral. All comments were retained for analysis. Working independently, three coders (researchers) used inductive coding (Christians & Carey, 1989) to sift for emergent themes (Patton, 2002) relating to meta-social and/or meta-cognitive process. Researchers reviewed the initial set of emergent themes. Initial inductive coding produced significant (90%) interrater reliability for overall categories.

Specific aspects of each theme along with supporting participant quotes are categorized into meta-social and meta-cognitive developmental themes. Supporting quotes from participants are provided to support each theme.

Meta-Social Developmental Themes. Meta-social development is the study and reflection of one's own social skill progress. Meta-social themes that emerged from the data included 'fairness' and 'clarity/logic'. Aspects of fairness that emerged included social development concepts such as improved communication skills, taking turns, flexibility in perspective, practicing bias-free discussion, and showing compassion towards others. One student, for example, commented on the development of new perspectives and communication skills as follows: "Listening to my teammates opinions has really helped me to gain new perspectives on life situations". Regarding showing compassion towards others, another student stated, "Whenever my team does not agree, we stop and listen to each other." Aspects of clarity/logic that emerged included asking questions, negotiating reasonable agreements, defining of issues, and sound decision-making. One student articulated, "When the same thought or idea is presented in multiple ways, it helps to fully understand and define my own logic." Qualitative findings appear to be consistent with personal and professional development.

Meta-Cognitive Developmental Themes. Meta-cognitive development is the study/reflection on one's own cognitive skill progress. Meta-cognitive themes included depth, accuracy, and breadth. Aspects of 'depth' included cognitive development concepts such as improved problem solving, inductive reasoning, and deductive reasoning. In reference to inductive reasoning, one student stated, "We always talk through our reasonings and explain why we think that our answer is correct." Aspects of 'accuracy' included cognitive development concepts such as the development of research skills and analytical discipline, as stated by this student, "If there is a question unanswered or one that a teammate doesn't know, we all look it up, share what we found and our opinions on the topic/answers, then we discuss what we feel together is the best answer." Aspects of 'breadth' included cognitive development concepts such as relating to a variety of concepts and increased knowledge. In terms of breadth, one student stated, "Doing discussions, applications, and tests together as a team helped to broaden the idea of some topics".

In summary, although only briefly noted, the qualitative themes that emerged from the data are consistent with the quantitative findings in this study suggesting that the TBL/PBL process promotes both social and cognitive development.

Discussion

By studying two cohorts of a face-to-face large lecture introductory course, researchers were able to recruit from a variety of majors and backgrounds. This study hypothesizes that the interdisciplinary classroom setting added to the TBL process by providing a variety of participant perspectives on coursework.

This mixed methods study found evidence to support PBL and TBL as a preferred classroom structure to support social and cognitive development opportunities. Findings suggest that educators could use this model of education to promote higher order thinking and social skills.

Limitations

This study was conducted using a convenience sample at one University. The sample is significantly homogeneous and could benefit from a variety of sample courses, including upper level (major focused). Additionally, this study asked participants for their retrospective accounts of their experience in TBL vs. individual learning. The concept of individual learning was subjective to each student's past/present experience, potentially weakening the comparison scores. Furthermore, it is difficult to control for variability for the instructor, style, classroom, etc. Moreover, no measurement of student learning outcomes such as class scores were included or compared with a control (i.e., traditional lecture-style) classroom. Therefore, findings from this study should be tempered as they only highlight a retrospective, hypothetical comparison.

Future Research

It is recommended that the survey be replicated at different universities/classrooms across the United States to increase external validity. A control group/classroom is suggested to promote consistency within participant experience. Training in both PBL and TBL are needed to replicate the study for different instructors.

Teaching Considerations

Large-lecture University courses may consider adapting teaching models to promote student social and cognitive development. The instructor for a combined TBL/PBL course will spend considerable time in course/syllabi construction to overhaul a pre-existing course. The importance of the 'buy in' for students to participate in a combined TBL/PBL course cannot be understated. Significant team-building exercise time is suggested as students learn to communicate, work in roles, problem solve, and co-exist in a course where their grade depends on their ability to work as a team. The physical classroom space, chairs, and desks/tables will also help determine if this model for teaching is feasible. For example, instructors have been known to teaching in fixed, lecture hall style classrooms using TBL. However, a moveable chair/desk in a flat floored classroom may lend itself to a more workable TBL/PBL environment as students literally turn towards one another for teamwork and back again for instructor lessons. Proper education in both TBL/PBL models is needed to grasp core concepts. Seminal articles and books are recommended throughout this article as references.

Turning over precious class time to student led PBL/TBL tests, projects, assignments, discussions can at first be daunting. However, as time goes on, instructors may see an increase in attendance, test scores, overall grades, and perhaps most importantly student engagement.

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Tables & Figures

Table 1
Demographics Academic Year and Gender

Academic Year	N	Male	Female	Percent
Freshman	41	7	34	39.8%
Sophomore	32	2	29	31.0%
Junior	15	0	15	14.6%
Senior	15	3	12	14.6%
Totals	103	12	91	100%

Table 2
Demographics Race

Race	N	Percent
White	84	81.5%
Asian	8	7.7%
African American	5	4.8%
Bi-racial	3	2.9%
Arab	1	<1%
Latino	1	<1%
No Answer	1	<1%
Total	103	100%

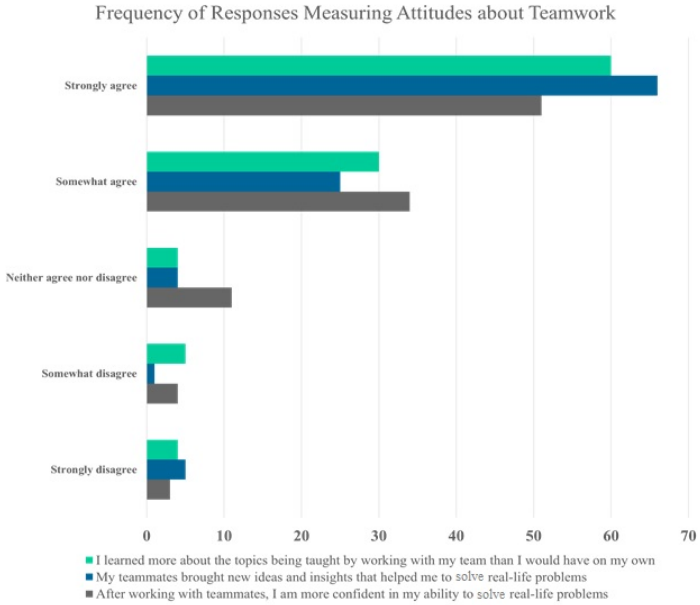
Table 3
Independent sample t-Tests: Retrospective social and cognitive review of working in teams versus working individually. Five-point Likert Scale.

	Teamwork				Individual				
Variable	*M*	*SD*	*n*	*ES*[a]	*M*	*SD*	*t*	*df*	*ES*[a]
Comprehension	4.23	.69	102	.89	4.05	.77	2.41*	101	.89
Application	4.42	.63	102	.89	3.96	.77	5.78***	101	.90
Critical Thinking	4.27	.66	102	.89	4.06	.81	2.84***	101	.89
Creative Thinking	4.28	.70	102	.90	3.77	.90	5.32***	101	.89
New Perspectives	4.32	.73	102	.90	3.68	.84	5.95***	101	.90
Social Skills	4.37	.64	102	.90	3.86	.93	5.66***	101	.89
Conflict Management	4.25	.69	102	.90	3.79	.88	5.19***	101	.89
Sum	30.14	3.47			27.08	4.90	6.98***		

Note. [a]$\frac{\text{ES} - \text{X Teamwork} - \text{X Individual}}{\text{SD}}$

***p<.001 (two-tailed) *p<.05 (two-tailed).

Figure 1. Frequency of Responses Measuring Attitudes about Teamwork



Note: α = 0.89 or greater for all three questions indicating high reliability.

Appendix
Interview Questions for Participants

1. This scale consists of three items on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). To what degree of agreement do you identify:
    a. I learned more about the topics being taught by working with my team than I would have on my own
    b. After working with teammates, I am more confident in my ability to solve real-life problems
    c. My teammates brought new ideas and insights that helped me to solve the problems presented in class
2. This scale consists of seven items on a 5-point Likert scale ranging from 1 (Very Poor) to 5 (Excellent).
    a. Rate your experience of comprehension of course concepts (e.g., able to understand course terms, concepts, etc.) while working in teams
    b. Rate your experience of application of course concepts (e.g., able to apply concepts to real world issues) while working in teams
    c. Rate your experience with critical thinking (e.g., the objective analysis of facts to form a judgement) while working in teams.
    d. Rate your experience with creative thinking (e.g., coming up with new ideas) while working in teams
    e. Rate your experience with new perspectives (e.g., new ideas, ways of looking at the world) while working in teams
    f. Rate your experience with social skills (e.g., communication, leadership, ability to work with others) while working in teams
    g. Rate your experience with conflict management (e.g., the ability to listen to differing opinions, dealing with contrasting behaviors, etc.) while working in teams
3. This scale consists of seven items on a 5-point Likert scale ranging from 1 (Very Poor) to 5 (Excellent).
    a. Rate your experience of comprehension of course concepts (e.g., able to understand course terms, concepts, etc.) while working individually
    b. Rate your experience of application of course concepts (e.g., able to apply concepts to real world issues) while working individually
    c. Rate your experience with critical thinking (e.g., the objective analysis of facts to form a judgement) while working individually
    d. Rate your experience with creative thinking (e.g., coming up with new ideas) while working individually
    e. Rate your experience with new perspectives (e.g., new ideas, ways of looking at the world) while working individually
    f. Rate your experience with social skills (e.g., communication, leadership, ability to work with others) while working individually
    g. Rate your experience with conflict management (e.g., the ability to listen to differing opinions, dealing with contrasting behaviors, etc.) while working in teams
4. Explain (qualitative) your overall experience solving problems (e.g., discussions, applications, etc.) while working with teammates.

Further Polarization on the Internet: Results from the 2016 Election

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In the last decade and a half, Internet use has increased among almost all Americans. Not only has adoption increased in the aggregate, almost all the ways we typically group Americans show increased Internet use across the board. Interestingly, groups that were once behind in Internet access and use like age 65 and older, or households making less than $30k, have shown the largest rates of growth since 2000; 14-58% and 34-74%, respectively (Perrin and Duncan 2015).

The concept of accidental information, much like with television news (see Keeter and Wilson, 1986; Zukin and Snyder, 1984), is still alive in early research concerning the Internet. Tewksbury, Weaver, and Maddex (2001) develop the theory that much like television viewers might accidentally see a snippet of a news program and retain the information, early Internet users had homepage "portals" which provided a front-page type experience that often-included news. Others test the effects of Internet access (and self-reported viewing of election information online) on political efficacy and participation. In the end, the results for all three traits might be able to "ease the concerns of cyber-pessimists who feared the Internet would have a negative effect" on these politically relevant variables (Kenski and Stroud, 2006).

Initially, these findings in political science and communication literature were largely categorized as the "digital divide." Findings focused on the differences in knowledge (both political and otherwise) brought about by simple access to the Internet or lack thereof (Bucy, 2000; Jung, Qiu, and Kim, 2001). In these studies, the main independent variable was almost always a dichotomous Internet access variable. Early surveys that asked about the Internet were geared toward gauging which demographic groups were on the Internet (Katz and Rice, 2002; Wei and Hindman, 2011) rather than what exactly they were doing there.

Strong associations are also found between those with higher education and seeking political information online and conclude that those with higher education are the most likely to use the Internet for capital enhancing activities like gaining political knowledge (Hargittai and Hinnant, 2008).

Further, the underlying infrastructure of the Internet as an obstacle to equitable political participation and engagement, including political learning regarding candidates. Coining the term "Googlearchy," Hindman (2008) discusses the way Internet users are, in essence, forced to move through a particular set of websites based on search results. In addition, those that consult a wide range of political news sources tend to have higher political knowledge than those that employ only a few sources of news (Oxley, 2012).

Still, an ever-changing medium suggests ever changing effects. As a case in point, Morris and Morris (2013) find evidence that in the 2012 Presidential election Internet access and use tend to close the knowledge and participation gaps among those of low and high socioeconomic status (SES). They show that those of high SES use the Internet for recreational and social uses, but those of lower SES are able to make greater gains in political knowledge and political participation with increased Internet access and use. After years of dismissal, these findings suggest a model of "incidental by-product" for political learning may again be taking hold, at least in some groups within the American electorate.

Few in the social sciences would debate that political elites in the United States are more polarized than ever (Jacobson, 2003; Fiorina, Abrams, and Pope, 2005). More debate, however, arises in discussing whether or not the American public mirrors the elite polarization. Some argue that the public has polarized along ideological (Jacobson, 2003; Abramowitz and Saunders, 2006) and partisan lines (Prior 2007;

Iyengar, Sood, and Lelkes, 2012) with causes such as religion (Dionne, 2006) and income inequality (McCarty, Poole, and Rosenthal, 2003).

Others argue against polarization in the public (Fiorina et al., 2005) and more for a sorting of the public (Hetherington, 2001; Layman and Carsey, 2002; Levendusky, 2009) with the help of the media (Mutz 2006). Despite literature debates on polarization vs. sorting, most of the literature agrees the media has a hand in the changes (For further discussion on mass political polarization and traditional media see: Prior (2013)). Recent literature shows while most mainstream media choices are largely centrist, other less widely circulated sources are more likely to, "offer more ideologically extreme packages of news and opinions" (Prior, 2013). One reason for this may be an attempt by the media to tap into the "agenda" of the public in order to generate page views or clicks, often the way advertisers determine ad-buys online (Bright and Nicholls, 2014).

2016 Election Theory & Hypotheses

The 2016 American Presidential election was one of many surprises. While the campaign, particularly for the Republican nomination, began in earnest soon after the 2012 general election, few could have predicted how it might end in November of 2016. The election saw a crowded Republican nominee field whittled from an initial 20+ candidates (needing two stages in early televised Republican debates) to a final nominee, businessman Donald Trump, with no prior political experience. For the Democrats, the 2016 election cycle was a series of increasing setbacks for Former First Lady and Secretary of State Hillary Clinton, with the rise of democratic-socialist Bernie Sanders and leaks from the emails of Campaign Chairman John Podesta. In the end, despite consensus that the race was Clinton's to lose, Trump won the Electoral College, securing the American Presidency.

While the Internet has played a part in past elections, it became an integral part of the 2016 election. Both major candidates used the Internet to reach out to voters through tweets, Facebook posts, and even viral videos. In an article for Politico.com, Andrew Keen (2016) wrote, "But the main reason why 2016 is the first real Internet election is that the presumptive nominee of one of the two major parties, Trump, is the first real Internet candidate. I'm not sure if he gets the Internet; but it definitely gets him."

Usage of the Internet has grown since 2012 (Perrin and Duncan, 2015), and we know Internet usage for political information spikes during politically motivating events like presidential elections. More than any other medium, the Internet allows for consumers to select into and out of coverage they like, dislike, agree, or disagree with. These options, seen through anecdotal evidence and coved in the literature review above, lay the groundwork for the 2016 election to be greatly polarized by Internet use. If Internet use is increasing, and availability of polarized Internet content is increasing, it is probable that the polarizing effect is compounded.

While ideological polarization is found to be partially driven by media consumption, including Internet use, it is likely that affective polarization, the way voters feel about politicians and parties, is being driven by Internet use as well. Ideological polarization tends to happen only when the consumer can understand and digest the media message. Affective polarization, on the other hand, is a gut reaction or feeling about a group or individual. Consumers do not need to completely read or comprehend the media message for affective polarization to happen, the simply need to receive the message and file it away as a positive or negative message about the subject.

The Internet is known to be a place where all outlets do not adhere to journalistic standards of verifiable or sourced information. Indeed, completely unverifiable "fake news" is a topic of discussion and concern based on the role it played in the 2016 presidential contest. In an election where the Internet takes center stage, consumers are expected to avoid news stories or posts that go against their preconceived notions (i.e. cognitive dissonance) and seek out messages that reinforce, and perhaps strengthen, their prior assumptions, ideas, and even personal feelings about parties or candidates.

With the assumption that Internet use is increasing, and candidates are making active use of their Internet presence alongside the polarized nature of Internet news sources, we hypothesize that: **(H1) In the 2016 election, individuals using the Internet more will be more likely to be affectively polarized than individuals using the Internet less or not at all.**

2016 Data & Methods

The data used in this study comes from the 2016 American National Election Study Parallel Survey developed and paid for through the continuing Cooperative Congressional Election Study.

Produced online by YouGov, the dataset includes "1643 respondents who were then matched down to a sample of 1000 to produce the final dataset" (Schaffner & Ansolabehere, 2017). Respondents were asked a battery of questions representing the "core" of the ANES questionnaires in a two-wave survey, one before and one after the election. Regrettably, not all 1,000 respondents were asked or gave answers to the items included in the models below. About 350 respondents were excluded from the analysis. Still, sample weights are provided in the dataset and utilized in the analysis where appropriate.

Affective polarization, the way Americans feelings about candidates, politicians, or parties are moving towards opposite ends of the positive-negative spectrum is measured in this study through survey items employing Feeling Thermometers. YouGov provided the following instructions to respondents:

> "We would like to get your feelings toward some of our political leaders and other people who are in the news these days. We will show the name of a person and we'd like you to rate that person using something we call the feeling thermometer. Ratings between 50 degrees and 100 degrees mean that you feel favorable and warm toward the person. Ratings between 0 degrees and 50 degrees mean that you don't feel favorable toward the person and that you don't care too much for that person. You would rate the person at the 50-degree mark if you don't feel particularly warm or cold toward the person."

Using these feeling thermometer ratings, we construct a measure of affective polarization by using the difference between the two corresponding individuals or parties. The larger the difference between an individual's ratings the more polarized they are assumed to be on their feelings about the candidate or party. Respondents are asked to rate the Democratic Candidate for President, Hillary Clinton, and the Republican Candidate for President, Donald Trump. Respondents are also asked to rate the Democratic and Republican Parties. These two sets of feeling thermometer ratings make our two measures of affective political polarization, Candidate Polarization and Party Polarization, by taking the absolute value of the Democratic Candidate or Party rating subtracted by the Republican Candidate or Party. These measures of polarization serve as our dependent variables. Table 1 reports the means for each measure of affective polarization as well as the standard errors.

Respondents were also asked about their media consumption habits in relation to the 2016 Presidential Election. Our main independent variable, Internet use, comes from the item: "How many times did you read, watch, or listen to any information about the campaign for President on the Internet?" Respondents were given the options: None; Just one or two; Several; or A good many. We are particularly pleased with the inclusion of this and other media items due to the phrase "about the campaign" which, in theory, reduces the number of respondents answering about Internet use unrelated to the campaign. Figure 1 shows an unweighted histogram of the responses to the Internet use item.

Respondents answered further items about media use, specifically radio, newspaper, and television, in a similar manner to the Internet item with the same selection of responses. These are included in the model as control variables to isolate the effect of Internet use while acknowledging that voters still receive information, and perhaps affective polarization, from these other media types.

Further control variables are provided by the YouGov demographics battery completed by all survey participants. Respondent education is broken into six categories: no high school diploma (15% of sample, weighted), high school diploma (29%), some college (23%), 2-year college degree (8%), four-year college degree (16%), and post-graduate education (9%). Age is determined by subtracting the respondents reported year of birth from 2016. All respondents fall between 18-years-old and 93-years-old, with an average age of 46. The sample is 48.4% male.

Respondents were asked to categorize themselves into racial or ethnic groups: White (67%), Black or African American (12%), Hispanic or Latino (14%), or Other (includes Asian or Asian-American, Native American, Middle Eastern, or Mixed Race) (7%). In the analysis below, the White category is used as the comparison baseline.

Respondents also categorized themselves into one of 16 family income categories between 1 (Less than $10,000) and 16 ($500,000 or more) with a median income group of 5 ($40,000 - $49,999).

Finally, respondents were asked their party identification with the item, "Generally speaking, do you think of yourself as a ...?" with Democrat (36%), Republican (25%), Independent (27%), Other, or Not Sure as answer choices. In this analysis, Other and Not Sure are coded together (12%) and Independents are used as the baseline for comparison.

Linear regression models are used to determine coefficients for the independent and control variables. STATA 15's *margins* command is then used to determine the marginal effects on each increase of Internet use on each measure polarization within the models.

2016 ANES Pilot Study Results & Discussion

In viewing the results of the linear regressions in Table 2, we see that for both measures of affective polarization, increasing Internet use seems to drive polarization. The positive and statistically significant coefficients tell us that as we increase Internet use, we are likely to see increased levels of polarization even when controlling for other media use and demographic variables.

The polarizing effect of the Internet seems to be greater for candidate-centered polarization than party-centered polarization. This echoes the means reported in Table 1 where more polarization is seen for the 2016 Candidates than the parties themselves. This could be an artifact of the highly contentious 2016 Presidential election and the coverage (both on and off the Internet) that surrounded the candidates as individuals and one, Donald Trump, as a party outsider. Respondents may not have exhibited as much affective polarization for the parties as they did for the candidates because they saw one as not representative of the party itself.

Further viewing of Table 2's results shows significant polarizing effects for television use. In fact, for both types of polarization we see slightly larger polarization coefficients. Coefficients for radio and newspaper use are not significant at the $p<0.05$ levels, though it is interesting that the sign for increased newspaper use seems to be a negative predictor of polarization.

Education, gender, and income are not shown to affect candidate- or party-centered polarization, though age does have a positive and statistically significant coefficient for both types of polarization. For each year older, respondents are likely to increase their candidate polarization by almost a third of a point and party polarization by about a sixth of a point. This would lead us to believe that an 80-year-old would be over 20-points more polarized about the candidates than an 18-year-old, just because of their age with all other things being equal. This could be due to opinions and feelings about parties or candidates solidifying over time. A voter may have "always" loved or hated Republicans or Democrats, and they find themselves only doing more of this as time goes by.

In viewing the categorical control variables, we see both Democrats and Republicans as being significantly more polarized than Independents while the Other/Not Sure voters seem to be no different from Independents for candidate polarization but less polarized for the parties.

Finally, we look at the race group control variables and see Black or African Americans more likely to show polarization than our White baseline group for the party, but no statistically significant difference for the candidate polarization. Interestingly, we also see our Other racial group as less likely to be polarized on parties than our baseline group though this may be due to the small subpopulation in the sample.

As a graphical representation of Table 2's output, Figures 2 and 3 show plots of the marginal effects of Internet use on candidate and party polarization with 95% confidence intervals of the predicted values. Figure 2 shows the linear prediction of a respondent's polarization as Internet use is increased. While each value of the Internet variable and its subsequent steps up or down are overlapped by each other, the two outer values, "None" and "A good many" uses of the Internet for campaign information do not overlap. This suggests a statistically significant increase in predicted polarization when individuals change from no Internet use to "A good many" Internet uses.

Figure 3 is less demonstrative of the difference and with the area bars representing the 95% confidence intervals, we would assume it is possible there is no difference or very little difference in predicted party polarization as an individual increase their Internet use. Still, when we view the results from Table 2 and Figures 2 and 3, we are able to accept our hypothesis as true: we find evidence that in the 2016 election, individuals using the Internet more will be more likely to be affectively polarized than individuals using the Internet less or not at all.

Conclusion

This study endeavors to complement existing literature about how Internet usage may be increasing polarization in the American public. When analyzing a medium that has yet to reach peak saturation, each step can be as essential to overall understanding as the beginning and end.

Further, this paper focuses on the idea of affective polarization, rather than ideological polarization. As political and social science literature continues to untangle how voters' "feelings" about a party or candidate can affect their voting habits or behaviors, finding a new use for feeling thermometers may help to keep these items relevant in nationally representative surveys.

Increased Internet use seems to lead towards more polarization or at least a widening gap in how candidates or parties are viewed favorably and unfavorably. In the 2016 Presidential election, this effect seems to be more pronounced in assessments of the candidates than assessments of the parties, though this may be due to the uniqueness of the 2016 election's major party candidates.

As the analysis of the 2016 election continues, we wish to look further into the ways the Internet causes affective polarization. Comparisons across party identification, age groups, income groups, and political knowledge would certainly add to the literature. Increased Internet use is not the singular cause of polarization, as it is most certainly a multifaceted phenomenon. Another contributing factor to polarization is likely to be party identification. Those identifying as a partisan will show approval towards their party and its candidates while also exhibiting disapproval of the opposition party and its candidates. Party identifiers should already be somewhat polarized (more so than independents), and increased Internet use should exacerbate this effect.

Since its introduction to American life two decades ago, the Internet has been lauded as a great information equalizer, but also decried as a source of division and insulation. The analysis here leans towards the later, as evidence suggests that in the 2016 Presidential election, the availability of partisan selective exposure has led the public to a more and more polarized condition. Even so, Trump's victory, though his campaign's vast and effective use of the Internet, may be just a glimpse at how candidates can tap into the ways the Internet separates Americans, reinforces prior ideas, and prevents contradiction.

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Table 1: 2016 Polarization Measures

Variable	**Mean**	**Std. Err.**
Party Polarization	61.706	1.699
Candidate Polarization	42.605	1.532

Table 2: 2016 Polarization Results

	Candidate Polarization	Party Polarization
Internet Use	5.617***	3.506*
	(1.651)	(1.596)
Television Use	5.999***	3.948**
	(1.667)	(1.409)
Radio Use	0.812	-0.483
	(1.525)	(1.235)
Newspaper Use	-2.492	0.170
	(1.468)	(1.148)
Education	-0.720	1.490
	(1.079)	(0.909)
Age	0.312**	0.139*
	(0.101)	(0.067)
Gender (Female)	1.886	0.059
	(2.971)	(2.707)
Income	-0.894	-0.684
	(0.504)	(0.398)
Party (Independents)		
Democrats	13.831***	26.251***
	(4.113)	(3.248)
Republicans	12.989**	19.648***
	(4.264)	(3.219)
Other/Not Sure	-10.843	-7.442*
	(6.171)	(3.314)
Race (White)		
Black or African American	7.236	11.682*
	(5.133)	(4.866)
Hispanic or Latino	-8.083	-1.138
	(5.733)	(4.150)
Other	-4.181	-9.905*

	(7.219)	(5.024)
Constant	26.122***	5.393
	(7.004)	(5.709)
N	671	655
R-sq	0.226	0.284
* p<0.05, ** p<0.01, *** p<0.001		

Figure 1:

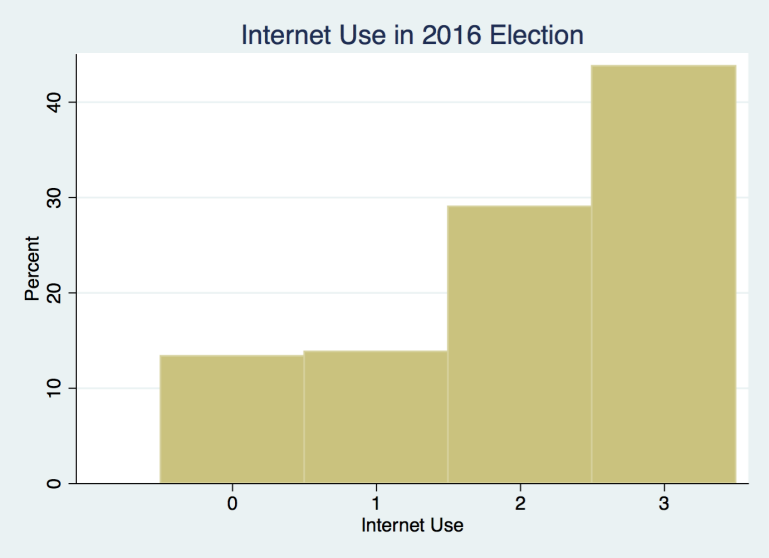


Figure 2:

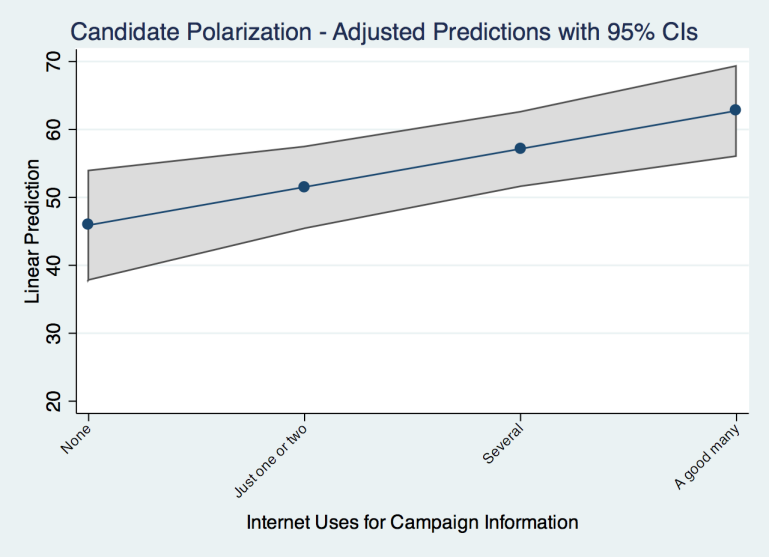
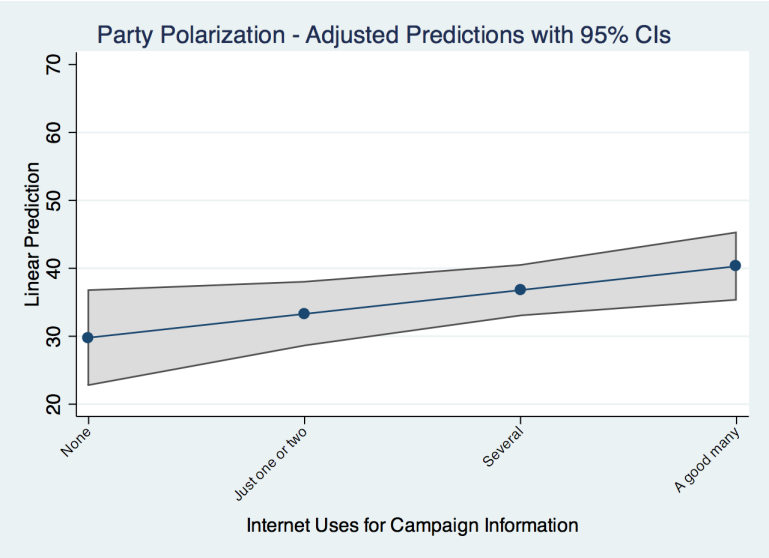


Figure 3:


Party Polarization - Adjusted Predictions with 95% CIs
Linear Prediction
20
30
40
50
60
70
None
Just one or two
Several
A good many
Internet Uses for Campaign Information

Book Review

Review of *A Promised Land* by Barack Obama

Obama, Barack. (2020). *A Promised Land*. New York: Crown.
ISBN: 978-1-5247-6336-9. 751 pages. $45.00, hardcover

The fans nicknamed the skinny black kid that played basketball for Punahoe high school, "Obama the Bomber." He would have started on any other team, but the coach disliked his free-wheeling street-style of play. Obama's punishment for arguing with his coach about playing time was consignment to the bench. Barrack Obama, the teenager, seethed with resentment. He knew the underlying reason for the coach's decision, had nothing to do with his game, but everything to do with the color of his skin. He reacted to this setback the Hawaiian way called ho'oponopono: talking, listening, forgiving, and storytelling.

These qualities served Obama in good stead throughout his entire political life. However, Donald J. Trump triggered Obama's painful memories of not being judged on his ability. Trump publicly insisted Obama publish a copy of his birth certificate. He charged Obama was born in Kenya and therefore, an illigitamate President. Obama believed these lies fed the anxieties of "millions of Americans spooked by a Black man in the White House." Michelle Obama said, "they're scared of you. Scared of us," after observing Tea Party demonstrators holding signs picturing her husband dressed like a witch doctor with a bone through his nose. She worried one of these protestors might pick up a gun and endanger her family.

A Promised Land (2020) is the first volume of Obama's memoirs covering his Presidential campaign, election in 2008, and first four years in office. Obama correctly observed, if he were a better writer, he could have included both terms in one book. In the preface, he declared his two goals in writing the book were to convey to people what it is like to be President and also share some personal stories. His stable rational approach to the Presidency emerges from a plethora of detail. People relish the personal side. For example, when Obama and his two daughters, Sasha and Malia, visited Rio de Janeiro, a Marine helicopter gave them a ride to the foot of the mountain topped by the magestic statue of Christ the Redeemer. As they looked up in awe, Sasha asked, "Are we supponsed to pray or something?" Her father answered, "Why not?" and so they bowed their heads in prayer – not the only time in the book Obama mentions praying.

Obama advocated a bi-partisan approach in Congress, even though Democrats controlled the House and the Senate. He also feared a Republican filibuster in the Senate might derail his

legislation. As a result, he dealt with unrelenting obstructionism from Republicans. Lindsay Graham double-crossed Obama on a bipartisan climate bill. Mitch McConnell did everything to stymie Wall Street reform until Obama promised to keep Bush era tax cuts intact. Vice-President Joe Biden did much of the negotiating because McConnell's base could not bear to see the Senator from Kentucky working together with a person they believed was a Black Muslim socialist. Chuck Grassley kept demanding changes to the Affordable Care Act until Obama finally invited the Senator to the Oval office. He asked Grassley, if he accepted every one of Grassley's suggestions, would he vote for the bill. Grassley replied, "I guess not." In the end, not a single Repubican voted for the bill. It became even more difficult to pass legislation after the Democrats lost the House in the mid-term election of 2010. Now that Joe Biden is President, he sees some of the same people using familiar tactics, and Joe has a long memory.

Obama was intrinsically reasoned and moderate. His grandmother, a banker, raised him to respect values of hard-work and community. His often-absent mother imparted a strong sense of social justice. Obama demonstrated love for his family and commented that over the years he learned there was no single way to be Black and simply trying to be a good man was enough. Two cornerstones of his policy initiatives, health care and the environment, started out as Republican initiatives. If there are any questions about Obama's personality, it was he could seem aloof and cautious. If anything, Republicans were afraid a man of his abilities could remake America. They resorted to obstructionism and racism to prevent such a reality from happening.

Students interested in the Presidency of Barack Obama should read his first book, *Dreams from My Father*: *A Story of Race and Inheritance* (1995). Donald Trump claimed it was ghost written. Trump insisted someone of such low intellectual caliber as Obama could not have written it, a charge echoed by right-wing pundits. Obama's second book *Audacity of Hope,* (2008) details his time in the Senate and optimistic belief in a new kind of politics. *A Promised Land* (2020) is more of a reference book. Anyone interested in the details of domestic policy, like the Affordable Care Act or foreign policy, such as a vivid description of the raid on Osama Bin Laden's compound, should read pertinent parts of this work. *A Promised Land* (2020) has a surpisingly good index, a necessity in navigating a book of this size. The pictures included in the book are dramatic and memorable. Pete Sousa, the White House photograper who took many of them, has a book of his own, *Obama an Intimate Portrait* (2017). Obama grew up in a non-

traditional but loving family. He received an excellent education, but never forgot the Biblical message “for to whom much is given, much is required” (Luke 12:48).

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