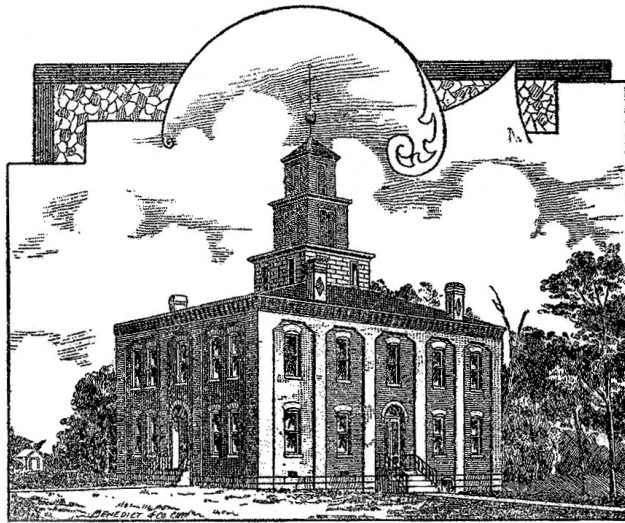


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EDITOR'S NOTES

Perhaps the most interesting article in this issue of the *JLAS* describes recent court cases revolving around the federal Equal Access Act as it impacts the rights of LGBTQ students. The authors assert that school administrators would do well to be aware of the history and dynamics of this law. Another innovative article in this edition examines controversies and coordinating policies surrounding Wikipedia, a commonly used resource in student research and writing.

Three studies in the present issue focus on literacy and reading. Recognizing that educators must come to understand and adjust to the impact of the shifting of reading from print texts to online texts via the Internet, *JLAS* presents an important study that investigates the extent “to which college students use metacognitive reading strategies to comprehend online and print academic texts.” The effectiveness of literacy instruction for special needs students through a co-teaching model is examined in another interesting piece found in this issue. The author suggested “that exposure to co-teaching at the pre-service level provided an opportunity for students with disabilities to receive significantly more individual instruction during co-teaching.” Reading literacy is a primary concern of education, and the effectiveness over time of a highly touted reading program was the detailed focus of another of this issue’s research projects—“Reading between the Lines: Long-term Impact of Scholastic Read 180 on Adolescent Readers.”

In another report, two researchers offer their finding on teachers’ attitudes toward the implementation and effects of peer-tutoring in the multi-ability classroom. Strategies for teaching the about WWI, 1914-1918, a key event in the 20th century and an event we are presently recognizing during its 100th anniversary years, graces this issue as well.

Dr. Randy Mills, Editor
Journal for the Liberal Arts and Sciences

Incorporating Explicit Strategy Instruction and Co-Teaching Experiences in General Education Classrooms: Implications for Primary Level Literacy Instruction

Chhanda Islam
Murray State University

Abstract

This paper examines how reading strategies can be taught explicitly by pre-service teachers enrolled in a reading methods course while they were assigned to a co-teaching delivery model that supported and enhanced literacy instruction for all students including students with special needs. The reading practicum teachers worked together with the cooperating teacher to reinforce, apply, and extend the literacy instruction in order to accomplish an effective joint partnership in the classroom. The results of this study suggested that exposure to co-teaching at the pre-service level provided an opportunity for students with disabilities to receive significantly more individual instruction during co-teaching.

Introduction

Educational research during the last fifteen years has emphasized the importance of collaboration between cooperating teachers and pre-service teachers (Campbell & Brummett, 2007; Kent & Simpson, 2009; Maltas & McCarty-Clair, 2006). It has been shown that collaboration with classroom teachers can empower pre-service teachers to walk more confidently into their profession, feeling well prepared to meet the needs of all students (Kent & Simpson, 2009). Allen, Cobb, and Danger (2003) found that pre-service teachers improved their literacy instruction as a result of reciprocal relationships with the cooperating teachers. In this same manner, Coffey (2010) found that reciprocal relationship helped pre-service teachers

feel well prepared to walk into their own classroom and make a difference in students' lives.

An important advantage of co-teaching is that there are more opportunities for pre-service teachers to teach explicitly through a greater range of appropriate instructional approaches. In successful co-teaching experiences, pre-service and the cooperating teacher plan and deliver instruction in the classroom through the use of seven instructional strategies: (1) one teach, one observe; (2) one teach, one assist; (3) station teaching; (4) parallel teaching; (5) supplemental teaching; (6) differentiated teaching; and (7) team teaching (Ziff, 2011). Through applications of these instructional strategies pre-service and cooperating teachers can develop a better understanding of how to help all students and especially students with specific learning disabilities (Ball, 2009).

Several collaborative instructional strategies have proven to be successful to guide pre-service teachers who work together in co-teaching partnerships to differentiate instruction. The instructional strategies include: (1) one teach, one observe- where the pre-service teacher takes the lead role and the cooperating teacher gathers observational information or both educators can take on both roles. (2) One teach, one assist- where the pre-service teacher has primary instructional responsibility while the cooperating teacher lends a voice to students if needed and assists with assignments. (3) Station teaching- where the pre-service teacher and cooperating teacher create a variety of literacy stations and divide students into groups. The groups are encouraged to spend a designated amount of time at each literacy station. (4) Parallel teaching- where pre-service teacher and cooperating teacher instruct different heterogeneous groups of students presenting literacy resources using the same comprehension strategies. (5) Supplemental teaching- where pre-service teacher works with students at their expected grade level and the cooperating teacher works with students who have reading or learning disabilities to remediate, reteach or vice versa. (6) Differentiated teaching- where the pre-service and cooperating teachers give students multiple options for taking in information and making sense of ideas. They use the same literacy content but recognize students' varying background knowledge, readiness, language,

preferences in learning and interests; and modify their instruction responsively. (7) Team teaching - where the pre-service and cooperating teachers co-teach, actively involved in the lesson, and share responsibility for planning, teaching, and assessing the progress of all students in the class (St. Cloud State University, 2012).

Appropriate use of co-teaching can capture the expertise of both cooperating and pre-service teacher and allows unique instructional opportunities for all students including students with special needs (Ziff, 2011). Numerous studies related to co-teaching have also indicated that pre-service teachers gain insight into the realities of the special populations while also learning valuable lessons in planning, accommodating, and instructing students with special needs (Friend, 2008; Ziff, 2011, & Ball, 2009). Consequently, co-teaching may be a very rewarding experience for pre-service teachers and beneficial to the special needs students as well.

The literacy practicum course normally requires pre-service teachers to work collaboratively with the cooperating teacher and reinforce, apply, and extend the literacy instruction in order to accomplish an effective joint partnership in the classroom. Because the pre-service teachers possess complimentary skills and training, each co-teacher takes the partnership lead in designing and delivery of literacy instruction. The National Reading Panel (NRP, 2000) recommended five essential reading instruction components for classroom teachers. The NRP and other researchers have also recommended using explicit instruction as an effective model of instruction when teaching the essential components of reading. Torgesen (2004) explained explicit literacy instruction as "instruction that does not leave anything to chance and does not make assumptions about skills and knowledge that children will acquire on their own" (p. 363). Explicit instruction is considered as one of the most effective reading instructions and best among existing instruction tools available to teachers (Archer & Hughes, 2011). Many researchers have contended explicit instruction elements can give learning disabled students an academic advantage when learning to read (Chall, 2002; Coyne et al., 2009; & Torgesen, 2004). In co-teaching, the pre-service and cooperating teachers

use explicit instruction to accommodate each individual's unique learning needs for facilitating further literacy development.

Coyne and colleagues (2009) examined explicit literacy comprehension instruction and concluded that the explicitness with which teachers teach comprehension strategies makes a difference in learner outcomes, especially for low achieving readers. A few researchers investigated how pre-service teachers used explicit strategy instruction to improve the quality of comprehension instruction while they were assigned to a co-teaching delivery model. The purpose of this paper was to examine how reading strategies can be taught explicitly by pre-service teachers enrolled in a reading methods course while they were assigned to a co-teaching delivery model that supported and enhanced literacy instruction for all students including students with special needs.

The Research

Co-teaching has been used as an instructional approach to support all students especially students with learning disabilities in general education classrooms. Many educators have used co-teaching as an instructional strategy for educational service delivery to meet the needs of all students. To establish a successful classroom environment for all students, co-teaching teams should engage in active communication, co-planning and preparation, and share in instructional delivery and assessment, and conflict resolution (Brown, Howerter, & Morgan, 2013). As increasing numbers of students with reading disabilities are taught in general education classrooms, co-teaching has been used an established method of special education service provision. Many cooperating teachers believe this shared approach of working side by side with a pre-service teacher can be a rewarding experience. The co-teaching techniques can enhance teachers' interactions with the collaborative partners and, in turn, improve educational outcomes for all students (Ploessl, Rock, Schoenfeld, & Blanks, 2010).

A large percentage of studies have been conducted to identify teachers' and students' perspectives of co-teaching and the efficacy of this teaching approach (Ashton, 2003; Barth, 2006; & Friend, 2007). The results of these studies suggested significant differences in student academic and behavioral

performances in comparison between the year before co-teaching and the year of co-teaching. Based on the results of these studies, co-teaching appears to be an effective instructional delivery option for meeting the needs of all students. (Hang & Rabren, 2009 & Friend, 2008).

Luttenegger (2012) said that teacher modeling is most effective when both co-teachers explicitly work on decoding, focus on comprehension and fluency strategies, encourage students to interpret texts, and demonstrate how to self-monitor as they read. Duke and Pearson (2002) identified six common features of explicit strategy instruction that support developing readers:

- prediction/prior knowledge
- think aloud, text structure
- visual representations
- summarizations
- questionings

In explicit comprehension strategy, both pre-service and cooperating teachers choose strategies that are intensive, persistent, and closely aligned with the text while students read. Modeling is followed by guided practice, directed by the co-teachers, who work with students to help them figure out how and when to use the comprehension strategy themselves. Students are encouraged to plan or set purposes for reading, clarify, summarize, visualize, confirm predictions, and continually monitor their understanding while reading (Pressley, 2002).

Practicum in Elementary Reading Instruction: A Reading Methods Course

The purpose of the practicum course was to design, plan, and implement instruction using a variety of materials, including technology, that addressed IRA guidelines and discussed the nature of the reading process. The pre-service teachers collaborated with the cooperating teachers and/or peers to provide the optimal literacy environment for students within the classroom setting. The theme of literacy/reading was stressed throughout every course activity as pre-service teachers learned how to facilitate elementary children's literacy development (reading, writing, speaking, listening, viewing, visually

representing). The themes of diversity and closing the achievement gap were addressed through lesson planning which included support for all learners and accommodations for those learners with special needs.

The pre-service teachers completed 20+ hours of field/clinical experiences. They provided instruction in reading to groups of students at a local elementary school. They were expected to prepare a lesson plan in collaboration with the cooperating teachers for each field experience session. The pre-service teachers reflected on each lesson using the teacher performance analysis and reflection format and submitted those in their reflective journal. In addition students practiced co-teaching procedures and completed co-teaching plans.

Methods

A reading methods course was offered by a mid-western university's Department of Early Childhood and Elementary Education. Fifteen undergraduate students were enrolled in the practicum course and the age of the enrolled students ranged from twenty to forty years. All were white male and female pre-service teacher candidates. The pre-service teachers developed an understanding of local, state, and national policies that affect reading and writing instruction including the Common Core Standards. Data were comprised of the researcher's supervision of the practicum as well as weekly written lesson plan and reflections by the pre-service teachers. The researcher observed each pre-service teacher twice per week and collected an average of 240 pages of reflections for each pre-service teacher including lesson plans, hand-outs, and work sample.

The data revealed important factors to consider as this study provided a framework for future research in the area of teacher education. In her course, the researcher spent several weeks teaching pre-service teachers how to teach comprehension strategies including making/confirming predictions, asking questions, creating visual images, drawing inferences, retelling, and utilizing self-monitoring strategies. Along with explicit strategy instruction, she emphasized a variety of teaching methods including (a) direct explanations, (b) modeling, (c) guided practice, (d) independent practice, (e) feedback, and (f) discussion. One of the most important features of explicit

instruction was the teacher's gradual release of responsibility. The pre-service teachers were taught the gradual release of responsibility model of instruction and learned how to shift from assuming "all the responsibility for performing a task ... to a situation in which the students assume all of the responsibility" (Duke & Pearson, 2002, p. 211). The researcher introduced the assigned text and discussed the purpose of the think-aloud strategy. She demonstrated how good readers monitor their understanding by rereading a sentence, using context clues, and reading ahead to clarify confusion (Wilhelm, 2001). After modeling a think aloud for the class, she invited pre-service teachers to participate in reading a text and illustrated their thinking and decision making to their peers for narrative and expository texts.

The researcher led the co-teaching training to expose pre-service teachers to the techniques, models, and best practices for implementing appropriate co-teaching instructional strategies. She also collaborated with the school partners to discuss various planning techniques for effective implementation of a successful co-teaching model. Both pre-service and cooperating teachers on the co-teaching team were responsible for differentiating the instructional planning and delivery of literacy instruction. Some co-teaching approaches (e.g., differentiated and team teaching) required greater commitment, flexibility, collaborative planning, and role release. When deciding which approach to use, the goal was to improve the educational outcomes of all students through the selected co-teaching instructional strategies. Many pre-service teachers wanted to start with parallel teaching because this approach involved less structured coordination among the co-teaching team members. As co-teaching skills and relationships strengthen, pre-service teachers were more comfortable in implementing the differentiated and team teaching approaches that required more time, coordination, collaborative planning and trust in one another's instructional and interpersonal skills.

The researcher discussed the importance of modifications and accommodations of instructions as well as the goals and objectives to ensure all students succeed in the classroom. The pre-service and cooperating teachers worked together in meeting the goals and ensuring adequate students' progress. In

the same way, the cooperating teachers discussed with the pre-service teachers their goals for each student. Both educators addressed the goals, objectives, and mandatory literacy curriculum for the primary grade level.

Results

The purpose of this paper was to examine how reading strategies can be taught explicitly by pre-service teachers enrolled in a reading methods course while they were assigned to a co-teaching delivery model that supported and enhanced literacy instruction for all students including students with special needs. It was crucial that pre-service and cooperating teachers used comprehension strategies: prediction, prior knowledge, think aloud, text structure, visual representations, summarizations, and questionings in order to better prepare students to apply strategies effectively in their reading of a variety of texts (Nichols, Ricklman, Young & Rupley, 2008). The pre-service and co-teachers engaged in six types of instructional methods in efforts to apply explicit strategies: a) direct explanations, (b) modeling, (c) guided practice, (d) independent practice, (e) feedback, and (f) discussion. The researcher found that the use of such strategies were essential to facilitate further literacy development.

Data were comprised of the researcher's supervision of the practicum as well as weekly lesson plan and written reflections by the pre-service teachers. The data analysis led to the conclusion that 95% of pre-service teachers made strong detailed connection between students' achievement and co-teachers' instructional contribution. Ninety-two percent of pre-service teachers analyzed the impact of explicit instructional strategies and instructional decisions on student learning. Ninety percent of pre-service teachers described specific student results from the lesson assessment, levels of student achievement, and specific explicit strategies for improving student learning. Ninety-eight percent of pre-service teachers said that the co-planning process encouraged two educators to bounce ideas off each other in order to deliver the explicit comprehension instruction in a most creative way (Reiter-Palmon & Illies, 2004), .

Ninety-two percent of pre-service teachers said that exposure to co-teaching at the pre-service level provided an

opportunity for students with disabilities to receive significantly more individual instruction during co-teaching. The results of the study suggested that co-teaching has great potential for promoting the effective inclusion of students with disabilities (Friend, 2008). The pre-service teachers reported satisfaction with the efficacy of co-teaching. Ninety percent of pre-service teachers said that co-teaching allowed more opportunities for small group and one-to-one learning, and stronger modeling for special need students during lessons. Ninety-eight percent of pre-service teachers wrote that co-teaching helped make accommodations or adaptations more convenient for meeting the diverse needs of their students.

In their lesson plan, the pre-service teachers described the pattern of student performance relative to the lesson objectives. They also described how they used formative assessment data to monitor students' progress and guide explicit instruction throughout the lesson. In their lesson impact and refinement, 90% of pre-service teachers reported that reading difficulty was reduced when explicit instruction was provided at the beginning of the lesson followed by interventions that were more intensive, explicit, repetitive, and supportive (Fielding, Kerr, & Rosier, 2007). Based on pre-test and post-test analysis of lessons, 90% of pre-service teachers reported that low achieving and special needs students gained 10% to 16% and regular students gained 30% to 45% towards the end of the semester (Figure 1). The gains were significant when cognitive strategies were taught through co-teacher think alouds and re-teaching or guided practice was provided with a gradual release of responsibility (Archer & Hughes, 2011).

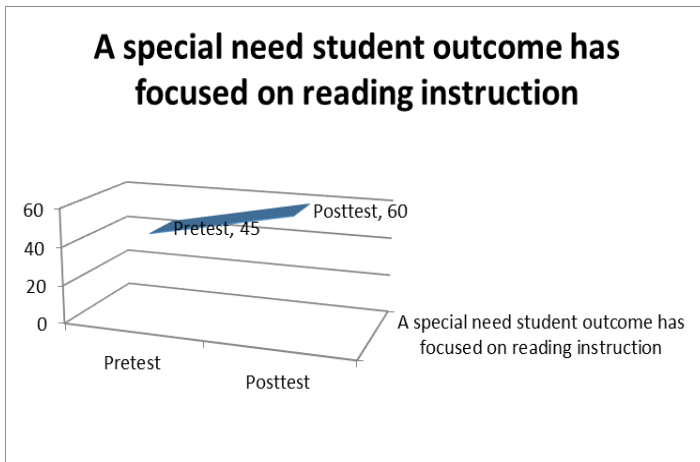


Figure 1

The data found explicit instruction elements gave a special need student an academic advantage when learning to comprehend

Based on analysis of the university's observation instrument, the researcher could draw the conclusion that the cooperating teacher gave pre-service teacher adequate support for remediating struggling readers and offered guidance or support during differentiated and team teaching. Throughout observation, at least 92% of co-teachers demonstrated explicit instruction in relation to the teaching of fluency and comprehension. Ninety-five percent of pre-service teachers reported that with the support of cooperating teachers, they became more explicit in explaining how to use reading skills as strategies and that explicit explanations resulted in greater student awareness of literacy (Baumann, Hoffman, Duffy-Hester, & Ro, 2000)). Ninety-four percent of pre-service teacher reported that co-teaching has the potential for promoting student achievement of disadvantaged and low achieving students in literacy instruction. These findings were consistent with the previous research that suggested comprehension instruction associated with the explicit instruction provided by co-teachers was very effective for increasing student achievement (Friend & Cook, 2007, Hoover & Patton, 2008).

Recommendations

Based on data analysis, it was contended that the explicitness with which comprehension strategies were taught through a co-teaching model affects learner outcomes in a positive manner, especially regarding low achieving students. However, many co-operating teachers who were willing to collaborate with the pre-service teachers did not have a similar philosophy or approach to teaching reading as the teacher education program (Luttenegger, 2012). Many cooperating teachers were more comfortable implementing a traditional basal program paradigm of mentioning, practicing, and assessing. These differences in philosophy greatly hindered the co-teaching process. Before starting the co-teaching process, the teacher education program should offer professional development training for both cooperating and pre-service teachers to discuss explicitness of instruction across all five of the essential components of reading in order to become an effective team.

Invariably, many pre-service teachers needed more university classes to learn how to model cognitive strategies or how to use guided practice with some form of scaffolding to achieve the increased student outcomes (McGill-Franzen & Colleagues, 2006). A very few lessons focused on the comprehension strategy of modeling although there was more modeling recommended. The pre-service teachers needed a great deal of practice to achieve exemplary status in using explicit instruction effectively, more likely years of practice. Many pre-service teachers provided too little guided practice, little or no scaffolding, and few suggestions for differentiating instruction according to students' needs.

The amount of time to plan, the time spent developing a lesson plan across all five of the essential components of reading, and the time spent to prepare for co-teaching and develop a professional relationship can all greatly impact the co-teaching process (Friend, 2008). Even when a designated period was established for co-planning, many cooperating teachers reported that some pre-service teachers communicated via e-mail and others failed to show up on time or always arrived late. This lack of commitment hindered the teaming process. One suggestion made by the data analysis was to designate a day or a half-day every 4 weeks when cooperating teachers can meet

extensively with the pre-service teachers to plan explicit literacy instruction and discuss the progress of students as well as changes in their instructional practice.

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A Comparative Analysis of College Students' Online and Print Global Metacognitive Reading Strategies

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Abstract

A major concern for educators is the shift from students' comprehension skills of paper or print texts to online texts (reading texts on the internet). While some studies show improvements in college students' metacognitive reading strategies to comprehend academic texts (print), few studies have investigated a correlation between college students' online and textual (print) metacognitive reading strategies. The purpose of this study was to investigate the extent to which college students use metacognitive reading strategies to comprehend online and print academic texts. The main themes addressed were college students' perceptions of their global metacognitive reading strategies. The sample in this study was 47 mainstream undergraduate students and 71 developmental students enrolled in a southeastern university.

Introduction

Three decades ago, a landmark report titled *A Nation at Risk* explored the United States (U.S.) educational system's failure to compete nationally with other advanced nations (The National Commission on Excellence in Education, 1983). The authors noted that there was a constant declining and disparaging literacy rate of high school completers in American schools, indicating that 13% of all 17-year-olds in the US could be considered functionally illiterate and that 40% of these were minority youth. Since this alarming finding, the U.S. government has taken drastic means to attempt to create a more literate

society. The No Child Left Behind Act of 2001 (NCLB; U.S. Department of Education, 2002) promised to provide major gains for students in K–12 schools by 2014 through the implementation of such programs as the Early Reading First initiative, geared to increase the literacy skills in early childhood education. Unfortunately, NCLB provided no such programs to increase adolescent or adult literacy rates in secondary and postsecondary institutions (Conley & Hinchman, 2004).

The number of students entering secondary classrooms with low literacy rates is rising dramatically. A recent study indicated that more than 60% of secondary students scored below the “proficient” level in reading achievement on the National Assessment of Education Progress (NAEP; Alliance For Excellent Education, 2011; Haynes, 2012). The three NAEP competencies – Basic, Proficient, and Advanced – are performance levels to assess reading comprehension on cognitive challenging texts. Students scoring below the “proficient” level were unable to utilize such strategies as “locate information, identify the main idea, theme or author’s purpose” (U.S. Department of Education, 2011).

Adding to the nation’s crisis on literacy, 70% of all students entering ninth-grade read below grade level (Alliance for Excellent Education, n.d.) and only 24% of graduating students assessed by the American College Testing Program (ACT) were college ready (ACT, 2011). These statistics indicate that a majority of US students graduating from high school are unprepared for succeeding in college level courses and are reading below basic skill levels. More importantly, these students lack the skills and strategies to undertake the rigor of academic texts distinctive of introductory and advanced college courses (Pugh, Pawan, & Antommarchi, 2000).

While the majority of these reports are focused primarily on the state of adolescent literacy in America’s schools, a far more expressed concern is high school students transitioning into two-year and four-year higher education institutions with “proficient to basic” literacy skills. Renewed attention is being given to the unpreparedness of these college-level students’ to complete college-level work. Consequently, when these unprepared high school graduates enter higher education, they must be placed in developmental or transitional reading courses for remediation

(Aud & Hannes, 2011) rather than in mainstream college freshman courses.

In the last ten years, there has been an increase in college students' engagement in hybrid and online courses in which online reading strategies are a requirement for the comprehension of academic content from web-based resources. Research suggests that "new skills and strategies may be required" (Castek, Coiro, Hartman, Henry, Leu, & Zawilinsky, 2010) to comprehend the more complex understanding of academic texts on the internet, unlike those of the traditional print texts (Afflerbach & Cho, 2009 Coiro, 2011). These new self-regulatory or metacognitive skills and strategies require learners to view online reading of academic texts with a new magnitude of comprehension strategies.

While researchers have investigated college students' uses of metacognitive reading strategies with only print or online texts, the increased usage of both mediums in student populations has been largely ignored. This neglected topic demands further research. There lies a disparity in the research and pedagogy of college reading compared with other disciplines that falls under the auspice of reading research (Stahl & King, 2009). Stahl and King's (2009) investigations in providing a historical overview of college reading research found the majority of studies indicating college reading as primarily secondary sources, rather than primary sources, establishing a lack of clear distinction between "college reading, learning assistance and developmental education." Although college students continue to read print-based materials, for example, textbooks, books, articles, this study will serve as an exploratory tool in enabling educators to be better informed of their students' metacognitive reading gaps as they instruct students transitioning from comprehending academic texts from print to online mediums.

Theoretical Approach

Recent publications in the field of cognition and reading comprehension suggest that two broad theoretical orientations have emerged: the metacognitive approach (Flavell, 1979) and the new literacies approach (Lanshear & Knobel, 2003; Leu, Kinzer, Coiro & Cammack, 2004). The metacognitive approach is tied to self-regulation of "one's self, task, and strategy" (Griffith &

Ruan, 2005). Paris & Winograd (1990) referred to metacognition as the "knowledge about cognitive states and abilities that can be shared among individuals while at the same time expanding the construct to include affective and motivational characteristics of thinking." The goal of metacognition (Harris & Hodges, 1995) is to become aware of "one's mental processes such that that one can monitor, regulate, and direct them as a desired end" (Griffith & Ruan, 2005). In contrast to metacognitive theory, the new literacies theory depicts readers' skills and strategies for comprehending information over the internet (Coiro & Dobler, 2007) and focuses on how the reader executes the complex skills to comprehend the text online.

For today's students, digital communication is the primary means of sharing or exchanging information via Skype, discussion boards, chat rooms, blogs, wikis, and podcasts, and this has transformed the scope of required literacy skills to comprehend online text material. This pattern of increased dependency on digital content demonstrates further the need to examine reading strategy use and metacognitive awareness of students' comprehensions of academic texts on the internet to prepare these college students who struggle with constructing meaning of academic texts presented in a digital format. Conceptualizing literacy as applied to comprehending academic texts on the Internet contributes to a new framework of thinking: a new literacies theory (Castek, Zawalinski, McVerry, O'Byrne, & Leu, 2008; Leu, Kinzer, Coiro, & Cammack, 2004; Leu, O'Byrne, Zawalinski, McVerry, & Everett-Cocapardo, 2009; McVerry, O'Byrne, & Zawalinski, 2009).

The two approaches are mutually compatible and, therefore, it can be argued that the metacognitive aspect provides a significant basis for the new literacies approach (e.g., Afflerbach & Cho, 2009; Alexander & Jetton, 2002; Baker & Brown, 1984; Hartman, Morsink, & Zheng, 2010; Coiro, 2011; Paris, Lipson, & Wixon, 1994; Paris & Winograd, 1990; Pressley & Afflerbach, 1995; Spiro, Feltovich, Jacobson, & Coulson, 1991). Researchers indicated that reading strategies should be purposeful, focused, and strategic to prevent "cognitive failure" (Garner, 1987). Recent research qualifies that a rapidly advancing use of technology in schools requires a new subset of reading skills (Afflerbach & Cho, 2009; Coiro, 2011; Coiro &

Dobler, 2007; Coiro, Malloy, & Rogers, 2006). These new online reading skills expand the repertoire of comprehension strategies for reading texts in diverse learning environments, that is, online and offline (print). Inextricably connected to cognition and learning, research into online and print metacognitive strategy use may address many of the current literacy concerns of both K–12 and postsecondary education.

Review of Literature

The acquisition of a high school diploma must prepare students far beyond higher education; it must prepare them for competition after college in the real world (Gewertz, 2011). However, many high school graduates entering US colleges and universities are not prepared for college-level work. As a result, US secondary school systems and postsecondary higher education institutions have low and inequitable completion rates (Callan, Finney, Kirst, Usdan, & Venezia, 2006). The large-scale national assessment of adults' reading abilities, the 2003 National Assessment of Adult Literacy (NAAL), indicated that approximately 11 million adults are non-literate in English and altogether, 93 million adults in the US would benefit from additional literacy instruction (Baer, Kutner, & Sabatini, 2009; ProLiteracy Worldwide, 2007). The report also indicated that "12 to 14 percent of adults, about 27 to 31 million people, were 'Below Basic' readers," the level at which the average high school graduate reads" (Kruidenier, MacArthur, & Wrigley, 2010).

For many high school graduates entering postsecondary higher education institutions, a college placement test is often required. These placement tests, such as Accuplacer created by The College Board, consists of short and long reading passages that require answers to explicit reading strategies, such as main idea, supporting details, and inference (The College Board, n.d.). A report conducted by Strong American Schools (2008) indicated that as many as one million students fail these college placement tests a year, requiring a developmental or remedial course to improve their basic skills. The report confirmed that four out of five students taking remedial courses had a high school GPA of 3.0 or higher. Interestingly, students participating in the study indicated that 59% of their high school courses were easy, desiring a more challenging curriculum.

A study conducted by the American College Testing Program (ACT, 2012) indicated that 48% of high school students taking the ACT exam are not prepared for college-level reading. These students are placed in a developmental or transitional reading course designed to increase comprehension due to "passive" reading habits, the inability to use critical thinking strategies, and to monitor their learning actively while reading complex texts (Elder & Paul, 1994). The difficulties college students face in reading hinder them from enrolling in credit bearing college courses. These students lack the comprehension skills to take charge of their own learning while reading college level texts (Holschuh, Nist, & Olejnik, 2001). These students have "had a long history of literacy problems and years of instruction that failed, in their estimation, to enhance their literacy development and preparedness for college success" (Allgood, Risko, Alvarez, & Fairbanks, 2000).

Students enrolled in remedial courses have not been raised speaking the dominant dialect by educated, middle-or upper-class parents (Zwiers, 2008). Zwiers (2008) identified these members of society as "non-mainstream" students "who have grown up with less academic support, fewer educational materials, and fewer school-like conversations." Data from the Strong American Schools' (2008) report determined that low-income, African American, Native American, and Hispanic students are more likely to enroll in remedial courses. These remedial or "gate keeper" courses "govern students access into tertiary education" (Pawan & Honeyford, 2009), impacting the necessity of the global economy's requirements for a more educated society beyond high school that will sustain and propel the work force into economic prosperity (Callan, Finney, Kirst, Usdan, & Venezia, 2006).

Poole (2008–2009) pointed out that studies on reading strategy use of online learners while engaged with online texts are limited. The author's research provided insight into the strategies college students' use while reading online. Her study concluded that students use primarily the same print metacognitive reading strategies when reading academic texts online. The results further suggested that students transfer the same reading skills from print to online texts; hence, students have not made a cognitive distinction between the two mediums.

Essentially, few have acquired strategic reading processes for constructing meaning from online texts.

Hamer and McGrath (2010) (as cited in Sandburg, 2011) researched 237 college students' preferences to reading online text as opposed to print text. The findings indicated that 72.6% of students preferred to read with a print text; whereas, 7.2% chose an online text. The authors also clarified that students felt they remembered more information with print text (60.8%) compared with online text (5.9%). Seventy-one percent of the students indicated a printed text as their primary choice for reading.

While a robust number of studies and literature concern metacognition and literacy, there is little information about assessing students' metacognitive strategies and defining what strategies are applicable to hinge these metacognitive gaps (Griffith & Ruan, 2005). Block and Pressley (2002) add that, "There is just not enough known about how to develop readers who monitor well and who, in turn, self-regulate their comprehension processes well." Because of such concern on the regulation of student metacognitive reading strategies, researchers created self-purported comprehension scales: Index of Reading Awareness, Reading Strategy Use, 12-item questionnaire, and the Metacognitive Awareness of Reading Strategies Inventory (MARSI) to learn more about cognition while reading academic texts.

Limited instruments have been developed to measure metacognitive reading awareness and the use of strategies. Jacobs and Paris (1987) constructed the Index of Reading Awareness instrument to measure elementary students' reading abilities. Mokhtari and Reichard (2002) indicated the survey scale of 22 multiple choice questions was the first to measure four aspects of students' metacognitive reading strategies: evaluation, planning, regulation, and conditional knowledge.

After many attempts to create a sustainable, valid, and reliable inventories such as Pereira-Laird and Deane's (1997) Reading Strategy Use; Schmitt's (1990) 12-item questionnaire; and Miholic's (1994) 10-item multiple choice inventory, Mokhtari and Reichard (2002) designed the Metacognitive Awareness of Reading Strategies Inventory (MARSI) to assess secondary "students' awareness and perceived use of reading strategies while reading academic or school-related materials." The MARSI

contains 30 questions in a Likert format that measure students' global (metacognitive), problem solving (cognitive), and support reading strategies.

Similar to the MARS instrument, the Survey of Reading Strategies (SORS, Mokhtari & Sheorey, 2002) was developed with the intention to measure adolescent and adult English as a Second Language (ESL) students' metacognitive strategies of academic texts. This 30-item instrument, adapted from Mokhtari and Reichard's (2002) MARS, aimed to assess "students who are literate in more than one language" (Mokhtari & Sheorey, 2002). The SORS instrument assessed the metacognitive reading strategies (global, problem solving, and support) of developmental reading students in postsecondary education settings, particularly English Speakers of Other Languages (ESOL) and speakers of varied dialects.

The Internet serves as the twenty-first century's medium for communication. However, few studies have assessed English speaking students' online reading strategies. The Online Survey of Reading Strategies (OSORS, Anderson, 2003) assesses second language readers' online academic metacognitive reading strategies. The research studied 247 high-beginning to high-intermediate English as a foreign language (EFL) and ESL students to assess whether online reading strategies differed between EFL students and ESL readers. The results indicated that a difference appeared in only problem solving strategies between the two groups when reading academic texts online (Anderson, 2003).

Kymes (2007) conducted a study on high school seniors' online reading strategies. Students were surveyed in regards to their online and print reading strategies, standardized reading comprehension scores, and internet use habits. The findings concluded that strategy use with online texts showed a statistical significance in comparison to print text use. The results indicated that students use an "incomplete set of skills and strategies" when reading online texts such as "tracking their place online with the cursor" and "making connections to other media texts."

In the current study, college students' perceptions towards their metacognitive reading strategy use will be examined from college students' use of global strategies of online and print texts. The focus of this research project evaluates two questions:

1. Are there significant differences in online and print metacognitive global reading strategies used by developmental and mainstream college students when reading academic texts?
2. To what extent do developmental and mainstream college students utilize global metacognitive reading strategies when comprehending online and print academic texts?

Methodology

Participants

The participants for this study consisted of 118 college students attending a public comprehensive university in the southeast corridor of the US who were enrolled in undergraduate classes in English and education and who had completed responses to two parallel questionnaires concerning their online and print metacognitive reading strategies of a narrative academic text. Of the 118 students, 71 were enrolled in developmental or transitional English courses and 47 were enrolled in mainstream college courses.

Instrumentation

The revised Anderson (2003) Online Survey of Reading Strategies (OSORS), a 38-item questionnaire developed for second language speakers of English were adapted for this study from the Mokhtari and Sheorey (2002) Survey of Reading Strategies (SORS), a 30-item questionnaire developed for native speakers of English. The Cronbach's alpha for the overall Online Survey of Academic Reading Strategies (OSOARS) was .93 and for the Survey of Academic Reading Strategies (SOARS) was .92. The reliabilities for each subsection of the OSOARS: Global, .86; Problem Solving, .80; and Support, .80 and the SOARS: Global, .87; Problem Solving, .77; and Support, .68, respectively. Thus, the questionnaires have been proven to be valuable resources in instrument development, with a 0.93 reliability reported on the MARS (SORS) instrument (Mokhtari & Sheorey, 2002) and 0.92 reliability reported on the OSORS instrument (Anderson, 2003).

Two items were adapted for use in this research project to distinguish it from the SORS and OSORS. The adapted

OSOARS were used to evaluate the academic metacognitive reading strategies for primarily native speakers of English in academic settings. Of the 38 items constituting the OSORS, a modification was made to two statements, 37 and 38, indicating a change in students' social and academic registers of language when processing information challenging academic texts: 37: "When reading online texts, I translate from social/everyday English into academic English"; and 38: "When reading online texts, I think about information in both social/everyday English and academic English." Changes were made due to the survey analysis of native English speakers rather than second language English speakers.

Each of the items on the OSOARS are associated with one of three broad groups: the first group consists of seventeen items and centers on the global reading strategies of students; the second group consists of eight items and deals with problem solving strategies; and the third group consists of nine items and concerns students' use of support strategies. With respect to each of the items within each group, respondents were asked to indicate their level of agreement on a five-point, Likert-type scale, where a value of "1" meant "I never or almost never do this"; "2" meant "I do this occasionally"; "3" meant "I sometimes do this"; "4" meant "I usually do this"; and a value of "5" meant "I always or almost always do this."

Along with five questions concerning the respondent's demographic characteristics, the items were entered in Survey Monkey, and a link to the questionnaire shared with instructors in four transitional developmental courses during the spring 2012 semester. After reading an online academic text assigned in class, the instructors issued the link to their students to complete the survey online. The researchers did not provide the instructors' academic online text assigned to the participants.

Results

Given coefficient Alpha statistics that were minimally acceptable, 12 scale means (*M*) and standard deviations (*SD*) were computed for 47 undergraduate students in regular/mainstream (Mainstream) classes and 71 students in developmental classes who had complete data for global strategies and both media (Table 1).

Table 1: Descriptive statistics for regular and developmental students for global strategies scales by medium

Medium	Mainstream Classes (<i>n</i> = 47)		Developmental Classes (<i>n</i> = 71)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Global Strategies Scale (18 items)				
Print =.87	3.67	0.55	3.21	0.63
Online=.87	3.43	0.55	3.16	0.72

A two-group, doubly-multivariate test pointed to statistically significant multivariate differences with respect to the between-subjects effect of strategy usage by group, irrespective of the medium employed ($\lambda = .892$, $F(3, 114) = 4.59$, $p < .01$, $\eta_p^2 = .108$); the within-subjects effect of printed text versus online media use across all students, irrespective of group membership ($\lambda = .875$, $F(3, 114) = 5.41$, $p < .01$, $\eta_p^2 = .125$); and the within-subjects interaction of the media used by students' group membership ($\lambda = .972$, $F(3, 114) = 2.99$, $p < .05$, $\eta_p^2 = .073$).

Inspection of the univariate results pertinent to the between-subject effect of strategy usage reveals that irrespective of media, there is a difference in the use of global strategies ($F(1, 116) = 10.97$, $p < .001$, $\eta_p^2 = .086$) favoring students in Mainstream classes ($M = 3.55$, $SD = 0.92$) versus students in Developmental classes ($M = 3.19$, $SD = 0.76$).

Regarding the within-subjects effect of media, printed text usage appeared to be systematically privileged over online usage according to the univariate outcomes, and as shown Figure 1, whether the strategy employed when categorized as global ($F(1, 116) = 10.52$, $p < .01$, $\eta_p^2 = .083$).

Table 2: Means and Standard Deviations Computed from Student Responses for Print and Online Global Reading Strategies

Global Print/Online Reading Strategies	Print		Online	
	M	SD	M	SD
I think about what I know to help me understand what I read.	4.02	.924	3.90	1.01
I use context clues to help me better understand what I'm reading.	3.81	.995	3.74	1.10
I have a purpose in mind when I read.	3.83	1.02	3.74	1.04
I use tables, figures, and pictures in text to increase my understanding.	3.47	1.24	3.37	1.13
I check my understanding when I come across conflicting information.	3.78	.980	3.61	1.10
I participate in discussions with other students using social everyday language about what I've read.	3.10	1.22	2.06	1.20
I try to guess what the content of the text is about when I read.	3.25	1.22	3.27	1.23
I check to see if my guesses about the text are right or wrong.	3.32	1.22	3.13	1.31
I use typographical aids like bold face and italics to identify key information.	3.53	1.29	3.34	1.28
I decide what to read closely and what to ignore.	3.15	1.16	3.26	1.20
I critically analyze and evaluate the information presented in the text.	3.45	1.05	3.36	1.15
I think about whether the content of the text fits my reading purpose.	3.23	1.15	3.41	1.22
I skim the text first by noting characteristics like length and organization.	3.07	1.23	3.43	1.23
I participate in class discussions with other students using academic language about what I've read.	3.00	1.21	1.92	1.21
I take an overall view of the text to see what it is before reading it.	3.71	1.13	3.52	1.19
When reading, I decide what to read closely and what to ignore.	3.15	1.16	3.26	1.20
I read texts for academic purposes.	3.47	1.24	3.29	1.16
I scan the text to get a basic understanding of whether it fits my purposes before reading it.	3.21	1.17	3.41	1.22
I read academic texts for fun.	2.46	1.28	3.19	1.37

* $p < .05$.

As Table 2 indicates, for both developmental and traditional college students, the means of individual global print strategy

use ranged from a high 4.02 – 3.53 range (mean of 3.5 or higher), a medium 3.47 – 3.00 range (mean of 2.5 to 3.4) and a null low range (mean of 2.4 or lower) indicating a high to medium strategy use of global print metacognitive strategy use.

For both developmental and traditional college students, the means of individual global online strategy use ranged from a high 3.90 – 3.52 range (mean of 3.5 or higher), a medium 3.43 – 3.13 (mean of 2.5 to 3.4) and a low 2.06 – 1.92 range (mean of 2.4 or lower).

Discussion

This research sought to answer two questions involving the usage of reading strategies employed by college students:

1. Are there significant differences in online and print metacognitive global reading strategies –used by developmental readers and mainstream college students when reading an academic text?
2. To what extent do developmental and mainstream college students utilize metacognitive global reading strategies when comprehending an online and print academic text?

The results of this current research indicated that irrespective of media, a significant difference exists in student-reported use of both global strategies in education and regular and developmental English classes. Mainstream students reported greater use of the global strategies compared with the responses of students in developmental courses.

The results of this study also reveal that students reported use of metacognitive reading strategies more often with printed text than with online reading, and students enrolled in mainstream classes utilize these strategies more often than their counterparts in developmental classes. However, global strategies were employed more often with printed text than with reading online. The results of this study also indicate differences between the groups.

Based upon the results of this study college students, irrespective of medium, indicated very little to non-participation in online discussions via chat, Skype or other media that utilizes

oral communication. However, students reported a medium usage of oral discussions in regards to print text in class.

Klein's (1998) research supports the results of this study. Her findings revealed that metacognitive monitoring fosters transfer in the retrieval of relevant information and its effects on knowledge representation, which leads to complex cognitive processing. Klein suggests that when students learn to utilize multiple metacognitive reading skills, the cognitive processing to comprehend texts increases. Klein's study also shows that the inconsistent performances on the reading achievement assessment amongst demographic variables indicates that students are continuously having problems in comprehending complex texts, as well as developing complex thinking skills. Students' responses to print and online texts on the SOARS and OSOARS in this study show that their perceived abilities to comprehend academic texts from multiple perspectives are unsuccessful overall. While online communication tools are available for usage with such platforms as Blackboard and Desire to Learn, professors are reluctant to require student participation. Even more, students may hone the skills for participation in online mediums such as chat or Skype, but are failing to utilize these types of digital communication tools in their online classrooms.

Conclusion

The aforementioned findings in the current study demonstrate a need to evaluate learners' comprehension strategies in both print and online environments. Research supports the theory that most students have difficulty reading in both contexts, suggesting that students struggle with comprehension skills in both mediums of online and print, and often the reading proficiency gap widens because students lack differentiating metacognitive reading comprehension skills of online academic text readers to print text readers (e.g., Coiro, 2003; Pressley & Afflerbach, 1995). Unfortunately, little is being done to evaluate and differentiate these metacognitive reading skills.

The majority of state assessments under the NCLB of 2001 assessed reading comprehension skills in the traditional print (paper) contexts. Until recently, states have granted students the

option to assess their learning on the internet and only a few states have moved all of their assessments online (Topol & Whitchurch, 2010). The Common Core State Standards Initiative (CCSSI) and Race to the Top grants require the use of technology in education settings to assess a student's learning abilities. Unfortunately, students entering college under the NCLB of 2002 phase and the pre-CCSSI, full implementation in 2014, have a heavier emphasis with traditional print academic reading assessments rather than the expected online academic reading assessments. Such a major shift in education will undoubtedly lead to how students process information online cognitively and metacognitively.

The results of this study also suggested that students enrolled in mainstream college courses use global reading strategies to a greater extent than their peers in developmental classes. Overall, college students use metacognitive reading strategies to a greater extent when processing academic print text compared with processing online text. These findings support the research of Afflerbach and Cho (2009) and Coiro (2011) who found that new reading skills and strategies may be required for online text. The current results contribute to the framework of the new literacies theory (Castek, Zawalinski, McVerry, O'Byrne, & Leu, 2008; Leu, Kinzer, Coiro, & Cammack, 2004; Leu, O'Byrne, Zawalinski, McVerry, & Everett-Cocapardo, 2009) that involves the conceptualization of literacy as applied to comprehending academic texts on the Internet.

These results have important pedagogic implications. To improve thinking skills, educators must begin to rethink the concept of cognition and of how students process information (metacognition) to master academic texts in both print and online mediums. One major shift in metacognition is for students whose primary mode of reading print text to adjust strategically to reading online texts. The implications for college classrooms are to establish new reading experiences with diverse academic texts in different educational mediums (online and print) and to integrate diverse forms of digital communication tools in the course. A major goal for educators in higher education environments is to teach students explicit metacognitive reading comprehension strategies in both mediums (print and online). Students will need to adjust their reading speed and learn to use

multi-complex reading skills, particularly with online academic texts. Utilizing metacognitive skills to comprehend Internet and print texts leads to greater academic success for students. Such multi-faceted reading experiences prepare students to utilize and adapt their metacognitive skills to different educational landscapes (print and online).

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Recent Challenges to the Equal Access Act: Gay Straight Alliances in Public Schools

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Abstract

Federal court cases were examined in an effort to view recent First Amendment rights' infringements which have occurred across the United States. Case law reinforces students' rights to create student run led extracurricular clubs that bring together lesbian, gay, bisexual, transgendered and straight students to support each other and to promote tolerance. A history of the challenges was presented as well as the financial consequences incurred by schools which that have refused to allow these groups. Combined, the recent court cases and threats of litigation suggest a stronger understanding of homosexual rights, as protected by the First Amendment, is needed for administrators and school officials.

Introduction

On March 4, 2011, a group of students, parents, and political activists convened on a school campus in Corpus Christi, Texas. The purpose of the rally was not to encourage students to do well on the upcoming state exams, but instead, to protest the local school board's decision not to allow the creation of an extra-curricula student run led club titled, Gay Straight Alliance. With the help of the American Civil Liberties Union (ACLU), including a threat of legal action if necessary, the school district finally decided to recognize the liberties given to gay students under the federal law known as the Equal Access Act (EAA). Steelman, Forge, Walls & Bridges (2014) have noted too that such student clubs have been shown to be productive for all

students in a particular school. But whether or not educators and other members of a school community buy into this belief, legally, such student clubs are now recognized as being protected by law. The purpose of this article is to explore the events surrounding the most recent controversy and educate school leaders, teachers, and gay and lesbian students of their rights when it comes to extra-curricular clubs.

The Equal Access Act and Student Groups

In relevant part, the First Amendment of the Constitution states, "Congress shall make no law abridging the freedom of Speech" (U.S. Constitution, amend. 1). On this issue, the United States Supreme Court holds, "States and their agencies cannot set-out lesbians and gay men for special treatment, neither inclusive nor exclusive" (*Collins v. Scottsboro City Board of Education*, 2008, 3). Most student-led, special interest, non-curriculum clubs must be allowed to organize in most U.S. high schools. Their right to assemble is usually recognized as protected under a federal law known as the Equal Access Act (20 U.S.C. §§ 4071-74). The EAA applies to any public school receiving federal aid and that has a minimum of one student led non- curriculum club also known as a limited open forum.

The EAA prohibits covered schools from "denying equal access or a fair opportunity to, or discriminating against, any students who wish to conduct a meeting within that limited open forum on the basis of the religious, political, philosophical, or content of the speech at such meetings." (20 U.S.C.A. § 4071 (a)). The reason congress enacted the law was because prior to 1984, there were various court decisions limiting religious groups from meeting at schools. However, following passage of the EAA, there has been a growth of extra-curricular Christian organizations in schools such as the Fellowship of Christian Athletes (FCA).

Of course the EAA does not provide for the creation of any organization or curriculum within the group's proposed meetings. The EAA states, the "Act shall not be construed to limit the authority of the school, its agents or employees, to maintain order and discipline on school premises, to protect the well-being of students and faculty, and to assure that attendance of students at meetings is voluntary" (20 U.S.C.A. §4071 (f)). Many

schools point to *Caudillo v. Lubbock Independent School District*, which held that a school could deny a Gay and Proud club's application based on the fact that the club's website included links to other websites containing "obscene and explicit sexual" material and that their stated goal of educating students in safe sex directly intervened with the school's "abstinence only" policy. 311 F. Supp. 2d 550, 564 (N.D. Tex. 2004). In *Bethel School District v. Fraser* (1986), the Supreme Court ruled that schools can prohibit "sexually explicit, indecent, or lewd speech" (p. 675). Similarly, the Supreme Court held in *Hazelwood School District v. Kuhlmeier* (1988), that schools can also regulate school-sponsored speech. Finally, in *Morse v. Frederick* (2007), the Supreme Court determined that schools can prohibit "[s]peech advocating illegal drug use" (28).

As the reader can see, the basic rights provided under EAA can be ignored if the school district can prove the proposed student organization is disruptive or limits the authority of the school district. Using this argument, school districts have attempted to limit gay student led groups. The following section will discuss, in chronological order, three of the most recent cases dealing with the EAA.

The 2006 Okeechobee County GSA

The most financially damaging case dealing with the Equal Access Act occurred to Okeechobee High School in Florida. Yasmin Gonzalez, a senior at the school, sought official recognition of an extra-curricular club titled, Okeechobee Gay-Straight Alliance (GSA). After complying with all the school requirements and submitting the necessary paperwork which included the creation of a constitution, Principal Wiersma refused to grant the club recognition. In denying the club access to the school, Principal Wiersma stated there were "too many non-curricular clubs at the school." When pressed on the issue, Principal Wiersma stated the school did not allow non-curricular clubs and, thus, was not required to follow the regulations in EAA. This point would be legally true except for the fact the school district allowed for a Fellowship of Christian Athletes (FCA). In November 2006, the school superintendent, Patricia Cooper, stated, "GSA was denied access because we are an abstinence only district and we do not condone or promote any

type of sexual activity.” Lawyers for the GSA countered the school’s position by stating that the existence of the GSA does not implicate the district’s abstinence only curriculum. The school superintendent finally revealed the school district’s true motivation by stating, “We don’t feel it’s appropriate in a school setting. The sexual orientation of a minor begins in the home” (Gonzalez, 2008).

The U.S. Southern District Court of Florida agreed with the GSA and required the school district to allow the creation of the non-curriculum group. The court held that once a school district receiving federal funding opens its doors to non-curriculum groups, it becomes an open access school (by EAA definition) and cannot discriminate based on sexual orientation. In a subsequent civil trial, the school district was ordered to pay \$326,000 in attorney fees, as well as, compensation to Ms. Gonzalez.

The Yulee, Florida Incidents (2007-09)

What transpired in Yulee, Florida beginning in 2007, involved two students, Hannah Page and Jacob Brock. In 2007, Hannah Page sought to form a Gay Straight Alliance (GSA) club at the middle school, while Jacob Brock wanted to create such a club at the high school. In the beginning of the 2007-2008 school year, Hannah Page, an eighth grader at the time, wanted to establish the GSA at the middle school. The middle school principal, Dr. Deonia Simmons, denied her request claiming that the presence of GSA would suggest that the school had taken a position in agreement with that of the GSA on the issue of gay rights. Despite, Ms. Page’s reference to the school principal that the middle school already had an established Fellowship of Christian Athletes (FCA) group, her request was denied (Gay and Straight Alliance, 2009).

On November 21, 2008, Jacob Brock, a junior at the high school, submitted a club constitution and written request for permission for the GSA to meet at the high school. Even though he followed all of the school’s guidelines, on January 27, 2009, the school district superintendent sent him a letter denying his request. The grounds for denial once again echoed those of the middle school principal and the superintendent reinforced the school district’s position of not creating a club “that’s name

highlighted specific sexual orientations as it would violate school board policy.”

On February 9, 2009, the Florida ACLU filed a petition for injunction with the United States District Court. On March 11, 2009, District Court Judge Henry Lee Adams, Jr., found in favor of the Gay Straight Alliance and required the school district to allow the creation of the requested organization. A subsequent civil lawsuit was settled on August 31, 2009, and the school district agreed to pay the ACLU \$40,000 in attorney fees for Jacob Brock. However, the school district continued to take the position that the GSA should not be allowed in the middle school. In 2010, the school district again settled with the ACLU and agreed to pay nominal damages to Hannah Page, as well as, attorney fees and costs, and to allow the GSA to be formed at the middle school.

The 2011 Flour Bluff, Texas Incident

In 2010, Bianca Peet was a senior at Flour Bluff High School in Texas. In November of that year, she approached the school principal and asked him could she start a Gay-Straight Alliance club in the school which would be called GSA. The principal told Ms. Peet that he wanted to think about her proposal and would get back to her after the school winter break. Following the winter break, Ms. Peet once again approached the school principal about forming the organization. The school principal sent Ms. Peet a message through a faculty advisor requesting that she change the name of the proposed group from the GSA to the Tolerance Club. Ms. Peet complied with the school's request and formally submitted all necessary paperwork to obtain the requisite permit. Her requested permit, however, was denied by the school. Believing her First Amendment rights had been violated despite complying with the principal's requested group name change, Ms. Peet sought assistance from outside the school. The Gay Straight Alliance at Texas A & M University immediately rallied to Ms. Peet's support. Led by President Paul Rodriguez, the Gay Straight Alliance at Texas A & M University demanded an explanation of the denial from the school district. The school board countered the request by stating that the school's policy concerning extra-curricular organizations had been in place since 2005, and that “the school district is not

subject to the part of the Equal Access Act” (Meyers, 2011). At this point, the Gay Straight Alliance at Texas A & M decided to contact the ACLU for legal assistance.

Both the Gay Straight Alliance at Texas A & M, as well as Ms. Peet were quick to point out that the school currently allowed the creation of an extra-curricular club called the Fellowship of Christian Athletes (FCA). On February 24, 2011, school superintendent Julie Carbajal, informed the school that she was looking into banning all extra-curricular clubs. In a preemptive move, the school district requested that the FCA hold all future group meetings off campus (Corpus Christi Times, 2011). Recognizing the school district was probably violating the Equal Access Act, on March 2, 2011, the ACLU sent a formal letter to the school district expressing their belief the school district was acting in violation of federal law. The ACLU demanded the school district remedy the situation by allowing the formation of the GSA. On March 9, 2011, the school district announced they would allow the formation of the GSA and would not require the name to be changed to the Tolerance Club (ACLU, 2011).

Lessons Learned for Administrators as well as for Students

The outcome of the recent legal challenges, as well as the new federal lawsuits, demonstrates a stronger ACLU presence in the area of sexual orientation rights in the field of education as well as a need by school administrators to protect the rights of all students. While the rights of lesbians and gay men have been established by the courts, the merging of First Amendment rights with regards to sexual orientation in the field of public education is a new area. This movement is not isolated to Florida and Texas. In 2002, the ACLU won a federal lawsuit forcing the Visalia School District in California to adopt a stronger program to address anti-homosexual harassment.

One issue that may cause more concerns for school officials is the role of the schools in the community. With the emergence of more and more extra-curricular activities sponsored by school districts, this in turn extends the school’s presence in the community. While school based extra-curricular activities are steeped in a school’s history, they occur outside the traditional classroom setting. While the final school bell rings at 3 p.m., these extra-curricular groups meet after hours with the school

board's approval; thus, extending the school principal's work day and professional responsibility. The effects of the extension of the school day have on school administrators, both physically and mentally, are beyond the scope of this article. However, in viewing the issues involving freedom of speech and lesbian and gay men's rights, school leaders may face serious legal challenges if they do not follow these guidelines:

- "A school administrator should create flexible, yet consistent, guidelines that cut across all religious, social and political divisions, and are based on the best interests of the children, in the light of their physical, emotional and developmental needs, is a sensible and pragmatic way in which to approach symbolic clothing." (Gereluk, 2007, p. 656).
- School officials must remember they are responsible for both creating a safe and positive learning environment as well as to ensure that the personal rights of students are not violated with respect to fundamental fairness.
- If a school is receiving federal funding and they allow a single non-curriculum student group they must consider applications from all groups.
- School administrators may create a committee to review students' appeals concerning extra curricula groups. The committee could include a member of the community with legal experience.
- With the above cases in mind, it may benefit school administrators to attend refresher courses on Equal Access rights of their students.
- Open channels of communication between the parents and the administration should be established. This openness can be enhanced by a strong and permanent parent-teacher organization.

Summary

The rights provided by the First Amendment are not provided for a select class of citizen. School administrators should tread carefully when making decisions concerning requests for non-curriculum student groups. While principals are not expected to be scholars in the field of federal case law, the cases quoted in this article involve established legal precedent when dealing with

issues pertaining to sexual orientation. Through proper application of case law, as well as the use of the guides mentioned in this article, a school administrator will most likely not receive an inquiring letter from the ACLU, but, rather, they will be ever-vigilant in protecting the First Amendment rights of their students.

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Teaching World War I

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Abstract

World War I was a seminal event in the history of mankind and in the development of events throughout the twentieth century. As such, it is imperative that students understand the war, its background, and its influence on the future of that century. The fall of empires set the stage for many of the great events of the twentieth century, including World War II and the end of colonialism, brought by the rise of nationalism. Geography and technology were central to the war, and teachers can guide students to appreciation of its sequence of events through the lens of both.

Introduction

The years 2014-2018 mark the 100th anniversary of World War I, a world changing event whose dynamics are important for students to understand, including the reasons for and effects of the war. WWI is an event unique in world history, and it lies at the dawn of the modern age. The world before the war was a world of gas lamps, pocket watches, long skirts, and cavalry charges, while the world after the war was one of electricity, wristwatches, short skirts linked to women's rights, and modern weaponry. It could be argued that in no other period of history were social changes both so numerous and so influential.

World War I is considered by many historians to be the seminal event of the twentieth century, the event that not only reconfigured the modern world geographically, to long-lasting effect, but also highlighted the importance of changing, modern technology. With the fall of the Soviet empire in the early 1990s and the subsequent various Balkan independent movements, World War I, a war that is often given short shrift in American

History classrooms due to the exigencies of time and the ubiquity of media attention to World War II, is more relevant than ever. World War I, as an extremely important international event, still resonates today and should be emphasized in social studies classrooms.

It is possible to teach World War I (or many other topics using similar methods) through a combination of maps, questioning, and student participation before even beginning to lecture. If students do much of the thinking and familiarizing themselves with the material first, retention can be greatly improved, and the necessary lectures become much more meaningful. This lesson/unit assumes students are coming to the material cold, not having any background or done any reading yet, and it can fit into a class period or two, or can be spread out over several days, depending upon the amount of discussion and lecture the teacher wishes to introduce. The guide below is addressed to the practicing teacher, and portions can be used for students as young as fifth grade, or as advanced as college, but it is particularly effective with high school students. In addition to the maps and introductory questions, it includes a quick overview (with many necessary omissions because of the vast quantity of material—the teacher can supplement as desired, especially re the non-European elements of the war) as a refresher for the teacher and/or introductory approach for the students. The suggestions below are addressed to the classroom teacher.

Geography in History

Hand out maps delineating Europe both before and after World War I (Appendix A), along with the information sheets (Appendix B and Appendix C), and give students about 5 minutes to list approximately 17 differences (depending on how one counts events like the fall of the Austrian Empire and the establishment of Austria and Hungary as separate countries) between the beginning and the end of the war. If you have the time, it's nice to have students color the maps, as that act reinforces spatial competence.

On the board, list "Countries That Disappeared," "New Countries," "Those Who Lost the Most Land," "Winners (Allies)," "Losers (Central Powers)," and "Those Unhappy at the End of

the War." Select several students to come to the board as recorders, and then call on others to use their maps to identify countries under the first three headings, which the students at the board will list under "Countries That Disappeared" or "New Countries." Then, call on students to use their handouts to name the Central Powers and the most significant of the Allies, to be put under the headings of "Winners" and "Losers" [this is also the time for a short disquisition on the meaning of the word "ally," since technically the Central Powers were allies with each other].

Similarly, call on students to list countries that lost the most land, and that should be unhappy at the end of the war (almost all will fall into the latter category, since even the winners didn't gain much land, and students will later learn about the terrible losses of life), and then let the helpers be seated. Ask the class what is the "cognitive dissonance," the element that doesn't make sense. They should be able to discover from their maps that Russia, which was an Ally, lost the most land, so ask them why. Usually, someone in the class will remember the Russian Revolution, which may be time for a short sidebar, depending on whether the class has studied the Russian Revolution yet or not, and on how much time can be allotted to it as part of the current discussion. Essentially, the Allies would not let the Germans keep the land they gotten when the Russians made a separate peace with them in the Treaty of Brest-Litovsk, yet the Allies were not going to give it back to the Russians after feeling betrayed by that separate peace, so many new countries came from the disputed land.

Ask the students why they think the Central Powers got that name: this attention reinforces the importance of geography and leads to the next question, "What did Germany have the most to worry about as a result of its geography?" You are trying to get someone to suggest the fear of a war on two sides, a "two-front" war. If no one in the class suggests this, then you do, noting the alliance of France and Russia. Now, ask the class "What should the Germans do about this fear?" The class will suggest various strategies, i.e. make alliances, be friendly and meek, arm to the teeth, etc. Then you explain the "Schlieffen Plan," of the 1890s, which essentially said that no matter what unsettling event happened anywhere in Europe, the Germans had to quickly attack France, even if the French hadn't done anything

provoking: the strategy was based on the idea that the Germans had to wipe out the French in three weeks and send troops back by train to the Russian front, since it would take the Russians three weeks to get their troops to their front, and only by planning this way could the Germans avoid a two-front war. This moment is a good time to talk briefly about the various alliances and the arms build-up in Europe, especially the dreadnoughts, citing the latter as new technology.

After the class has had time to read the chronology handout more closely, ask what started World War I. Usually someone knows or students can tell from the handout that it was the assassination of the Austrian Archduke: ask when the archduke was shot, and then ask when the war broke out. Point out that in the intervening month, the British king and most of the German general staff went on vacation. This moment would be a good time to mention that most of the crowned heads of Europe were cousins, descended from Queen Victoria, including King George V of England, Kaiser Wilhelm II of Germany, and Czar Nicholas and Czarina Alexandra of Russia.

Ask students who started the war: responses may include Serbia, but most should say Austria-Hungary from their information sheets. This is a good opening for a brief discussion of the assassination and negotiations after that, bearing on the responsibility of both Serbia and Austria. Then ask students why the Germans get the blame: time to discuss the famous “blank check,” and ask students about moral and ethical responsibility and one’s responsibility to one’s friends, both as an individual and as a country. Emphasize the alliance system again and also discuss why there were so many “Allies,” when not all actually participated: this question raises the concept of “world war,” (although some say the first “world war” was the War of the Austrian Succession in the 1700s, which morphed into the Seven Years’ War—it might be fun to look at these maps, if you have AP European or other advanced students). The idea of countries choosing up sides compares nicely with the period of the Crimean War, in which Piedmont participated in order to gain allies for the later struggle to unify Italy.

Technology in History

The Schlieffen Plan was put into play. So why didn't it work? Before trying to get students to answer that, ask them when was the last major European war? Sophisticated students may talk about the Crimea (distant from most of Europe), the Franco-Prussian War (only 6 months in length), or the many revolutions of the 1800s (small and short, although sometimes, as in France, repetitive), but someone should say the Napoleonic Wars that ended in 1815. You can now point out that that means there was really no one in Europe who grasped what a major war was like, and there also had been many technological advances since Napoleon. Call on students to name the five major new weapons: machine gun, poison gas, airplanes, submarines, and tanks. World War I broke out in August, and the British slogan, based on the past hundred years, was "Home by Christmas!" which, of course, didn't happen.

So why was the war not over quickly and why didn't the Schlieffen Plan work? The machine gun, which had been invented but, because of the slowness of the generals suspicious of new methods, not much used in the American Civil War (1861-1865), came into its own in World War I. The soldiers' response (not crafted by the generals) was to dig a trench to get out of the line of continuous fire. Hence, the Schlieffen Plan failed because the French did not collapse in three weeks, but instead dug in, the Western Front (on the west side of Germany) became a stalemate, and the Germans ended up fighting the dreaded two-front war until the Russians made their separate peace with Germany in the aforementioned Treaty of Brest-Litovsk.

The next new technology was poison gas. The tragedy of poison gas, as well as of other aspects of the war, can be illuminated with the World War I poetry of Wilfred Owen and Rupert Brooke. It should be noted that for both sides, because of wind, poison gas was almost as destructive to those using it as to the enemy it was used against, and it was so horrific that even Hitler didn't use it in World War II, as he was afraid it would then be used against the Germans.

As late as 1908, there were internal memos from the German general staff, saying that airplanes were recreational and would have no wartime use. But a few years makes a lot of

difference, and even early in the war, planes were used for reconnaissance and to fly over the enemy and drop both gas and bombs (students love the romance of early flight, with its leather helmets and white silk scarves, and most students, having heard of the “Red Baron,” Manfred von Richthofen, are charmed to discover that he exists outside of *Peanuts*). This is a good time to talk about the “flying aces” (“Don’t shoot at the plane, shoot at the man flying the plane”) and about how the American flying ace Eddie Rickenbacker moved to Miami after the war and founded Eastern Airlines.

Submarines were another important invention, and they made up most of the war at sea, since after the Battle of Jutland, which was essentially a draw, most of the rest of the German fleet remained bottled up in the North Sea: this fact is easy to understand if students look at their maps, which show the narrow entrance which could be blockaded. Mention should made here of the “Rules of War” in relation to the sinking of the *Lusitania* and of why the Americans still did not come into the war when the *Lusitania* sank in 1915: the Germans had given notice in New York City newspaper advertisements that they intended to sink it, because they were convinced the British illegally were carrying contraband (ammunition meant to be used in the war), which it turned out that they were, so no one could be too indignant about the Germans sinking a passenger ship which should have been allowed to go unmolested under the current rules of war. This moment is also a good time to have a discussion about why war, a time of violence and chaos, has “rules,” a subtle and alien concept to many students (and apparently some U. S. administrations). You may wish to talk briefly about the Russians dropping out of the war in 1917 and the Americans entering, the latter partly as a result of the Zimmerman telegram, in which Germany tried to get Mexico to join with Germany to fight the United States, with the promise of regaining the American Southwest.

Eventually, the tank was invented by the British (and quickly adopted by the Germans) to repel machine gun fire as the tank rolled across the barbed wire of “no man’s land,” the area between the lines of opposing trenches, finally helping bring an end to four long years of war greatly prolonged by the various new technologies.

Additionally, advancements in color printing, which had been developed for use in advertisements, now were turned to propaganda purposes by both sides, making feeling even more virulent. There are wonderful examples of propaganda posters of the period, from both sides, available on the internet at a variety of sites (see Appendix A).

Using Maps to Track the End and Anticipate the Future

Finally, back at the classroom board, it is time to finish filling in “Those Unhappy at the End of the War,” using the maps students have examined. This list should include almost every major country: using volunteers again at the board to list countries as they are named, students (with occasional teacher help) should be able to explain reasons why most countries were unhappy at the end of a devastating war that left Europe in rubble with 10,000,000 dead, including nearly half the young men of that generation. There was much bitterness on every side, with some countries feeling the Treaty of Versailles was too harsh (Germany) and some feeling it was too lenient (France and Belgium). Aside from the general malaise due to the terrible number of deaths and to horrible devastation, specific examples of unhappy countries were: Italy (very disappointing amount of new land, promised by the Allies, most of it mountainous); England, France, and Belgium (very little new land), Russia (Communist government, broke with the Allies, lost the most land of any country), Austria-Hungary (loss of empire), Turkey (loss of empire), Germany (loss of empire and a huge amount of European land, including colonies and Alsace-Lorraine, had to take the blame for the war and pay the biggest reparations), United States (gained very little, became more isolationist), Bulgaria (loss of Mediterranean port), Yugoslavia (internal sections offended by the Serbs’ preeminence), Czechoslovakia (despite finally achieving nationhood, it had dangerous numbers of ethnic Germans, a factor that would be significant as World War II loomed), the Middle East (many new countries were governed by colonial powers with League of Nations mandates to administer them). Particular note should be paid to examining the post-War map for East Prussia being separated from the rest of Germany—ask the class “What could be the future consequences of a peace in which everyone is unhappy and

Germans have to cross Poland to get to East Prussia?"
Someone should say World War II.

Beyond Geography: Establishing Background Leading Up to World War I

By 1914, huge standing armies were common in Europe, and the coming of war was assumed by many, as Kaiser Wilhelm prepared to prove his military manhood to the world, especially his cousins (who were the crowned heads of Europe, he and the others all grandchildren of Queen Victoria), despite his withered arm. Germany had a legacy of Prussian military culture, and by 1900 produced more steel than France and Britain combined: both countries were jealous and France was still smarting about the Germans taking Alsace-Lorraine in the 1871 Franco-Prussian War.

In the late 1800s, Bismarck had been afraid a war might tear apart the newly formed German Empire, so he had pursued peace until his retirement in 1890 (after his initial aggression in unifying Germany). Worried about a future two-front war, in 1879 Bismarck formed the Triple Alliance (Germany, Austria-Hungary, Italy), which lasted until World War I and essentially said that if any member were in a war with two or more powers, the others would aid militarily. The French formed a Franco-Russian alliance, which stunned everyone, as the French Republic was radical and Russia's czar reactionary (but both were afraid of the Germans, hence the saying that "politics makes strange bedfellows"). The British were big on "splendid isolation," but getting nervous as the Germans were building a big navy (the "dreadnoughts," big new well-armed ships, were a major portion of the naval arms race between Germany and Great Britain). The British became friendlier with France (the "entente cordiale"), which brought England and Russia together with France in the Triple Entente (though Britain refused to make any formal military commitment).

Two Moroccan crises and two Balkan wars led to great instability in the area, and on June 28, 1914 Archduke Franz Ferdinand, the heir to the Austrian throne, was assassinated (along with his wife) by a seventeen year old schoolboy terrorist member of a Serbian secret society. The world was shocked and Austria protested, determined to crush the South Slav

separatism movement. Germany, largely run by the old, upper-class Prussian military, not by the Social Democratic Reichstag, offered a “blank check” of support to the Austrians, urging them to be firm. The Austrians sent a nasty telegram with many ultimatums, and the Serbs, who denied responsibility, agreed to some but rejected the most critical demand: the Austrians wanted to investigate inside Serbia and punish the perpetrators. Russia supported the Serbs, to keep its influence in the Balkans, and France supported Russia, to have a future ally against Germany. Austria declared war on Serbia and Russia got ready to fight Austria, so mobilized against Germany, too. In response, Germany declared war against France and Russia (the Schlieffen Plan), hoping Britain wouldn’t enter the war, but Britain committed to France and was indignant with the Germans for violating Belgian neutrality (guaranteed when Belgium became an independent country in 1830) on the way to France. The alliance system thus led to war.

A Brief Overview of the War Itself

On August 3, 1914, Germany attacked Belgium and France. It looked as though the Germans would quickly prevail, but French troops dug in, Russia attacked Germany, and the Germans had to pull troops from their western front to put on their eastern front.

French General Joffre counterattacked at the Battle of the Marne, and the Germans retreated. Germany was winning in the east, but in the west, all sides dug into trenches for a long stalemate. By 1915, Germans Zeppelin air raids began, as did the submarine blockade of Great Britain. The Battle of Ypres took place, poison gas was first used, the Allies invaded Gallipoli in Turkey, the Germans attacked Russia, the Germans sank the liner *Lusitania*, and Italy joined the war on the Allied side. I

In 1916, the Battle of Verdun (the longest battle of the war) was fought, as was the only naval battle (the Battle of Jutland, the biggest naval battle in history), which ended with no clear victor, thus undermining all of the naval preparations on both sides in the approach to the war. 1916 also saw the Battle of the Somme, with devastating losses on both sides, and the first use of both tanks and airplanes in the war.

In 1917, Germany's sending of the so-called "Zimmerman Telegram" helped bring the United States into the war, as did the later-justified suspicion that the Russians would make a separate peace with the Germans (the Treaty of Brest-Litovsk in 1918), due to Bolshevik control of Russia as a result of the Russian Revolution. In July, the Battle of Passchendaele (Third Battle of Ypres) was fought.

In 1918, Woodrow Wilson promoted his "Fourteen Points" for the post-war world, as German submarines appeared in U. S. waters. Also that year, the Second Battle of the Marne was fought, the Russian royal family was executed by the communist government, and the Meuse-Argonne offensive began. Finally, Kaiser Wilhelm of Germany abdicated and fled, and the Armistice took effect on November 11, 1918.

Making Sense of the Aftermath

When the war ended, the Armistice took effect on November 11, 1918, "the 11th hour of the 11th day of the 11th month." Europe lay in ruins: over 10 million people were dead as a result of the war, an entire generation of young men was decimated, and the flu epidemic of 1918-1919 killed another 20-40 million people. The peace conference of 1919 brought additional animosity, as countries made exorbitant (but sometimes justified) claims against Germany and Austria. At the peace conference, the League of Nations was initiated, there was major quarreling about the disposition of disputed lands (many of which had been taken from Russia), and the peace treaties with the 5 Central Powers (Hungary was a separate county by then) were signed, including the controversial

Treaty of Versailles with Germany: many (notably, France and Belgium) found it too lenient in its provisions, while others (particularly Germany) found it too harshly punitive. Many unresolved issues about the fairness and the efficacy of the peace would fester throughout the 1920s and 1930s, to be tragically reopened in World War II. The issues raised in the Balkans and the Middle East continue to haunt the world today

Appendix A

There are many maps available in hard copy or on websites.

A selection of pre-World War I maps of Europe can be found on:

http://www.google.com/search?q=world+war+one+maps&tbm=isch&tbo=u&source=univ&sa=X&ei=079uUpHtA4i3kAfdnIF4&sqi=2&ved=0CCkQsAQ&biw=1139&bih=582#q=pre-world+war+one+maps&tbm=isch&imgdii=_

A selection of post-World War I maps of Europe (with boundary changes resulting from the war) can be found on:

http://www.google.com/search?q=world+war+one+maps&tbm=isch&tbo=u&source=univ&sa=X&ei=079uUpHtA4i3kAfdnIF4&sqi=2&ved=0CCkQsAQ&biw=1139&bih=582#q=post-world+war+one+maps&tbm=isch&imgdii=_

A description of the flu epidemic of 1918 can be found on the Stanford University website: Virus.Stanford.edu/uda

An overview of World War I with timelines can be found on: www.worldwar-1.net

A wide array of World War I propaganda posters can be found on:

http://www.google.com/search?q=world+war+i+posters&source=lnms&tbm=isch&sa=X&ei=sr1uUoWTGMmskAfWyYF4&sqi=2&ved=0CAcQ_AUoAQ&biw=1139&bih=582

Appendix B

Participating Countries

Allies (in chronological order): France, Great Britain, Russia, Serbia, Montenegro, Japan, Belgium, Italy, San Marino, Rumania, Panama, Cuba, Greece, Siam, Liberia, China, Brazil, United States.

Central Powers (in chronological order): Austria-Hungary, Germany, Turkey, Bulgaria

Appendix C

Events Chronology:

1914

June 28—Archduke Franz Ferdinand of Austria (heir to the Austrian throne) and his wife are assassinated at Sarajevo in Serbia.

July 28—Austria-Hungary declares war on Serbia.

August 1—Germany (Austria-Hungary's ally) declares war on Russia (Serbia's ally)

August 3—Germany declares war on France (Russia's ally)

August 4—Great Britain declares war on Germany, and Germany invades Belgium

August 6—Austria-Hungary declares war on Russia and Serbia declares war on Germany

August 7—Montenegro declares war on Austria-Hungary

August 10—France declares war on Austria-Hungary

August 12—Great Britain declares war on Austria-Hungary, and Montenegro declares war on Germany

August 23—Japan declares war on Germany

August 25—Austria-Hungary declares war on Japan
August 28—Austria-Hungary declares war on Belgium
September 5—Battle of the Marne begins
October 19—Battle of Ypres begins
October 30—Russia declares war on Turkey
November 5—France and Great Britain declare war on Turkey

1915

February 18—Germany blockades Great Britain with submarines
April 22—first use of poison gas (at 2nd Battle of Ypres)
April 25—Invasion of Gallipoli by British
May 7—Germans sink *Lusitania*
May 23—Italy declares war on Austria-Hungary (with promise from Allies of land)
June 2—San Marino declares war on Austria-Hungary
August 20—Italy declares war on Turkey
October 3–5—Invasion of Salonika by Allies
October 5—Russia declares war on Bulgaria
October 14—Bulgaria declares war on Serbia
October 15—Great Britain declares war on Bulgaria
October 16—France declares war on Bulgaria
October 17—Italy declares war on Bulgaria

1916

February 21—Battle of Verdun begins (and goes on intermittently until September 3, when the Germans are finally driven back, at great cost of life to both sides)
March 9—Germany declares war on Portugal
March 16—Austria-Hungary declares war on Portugal
May 31—Battle of Jutland in North Sea
July 1—Battle of the Somme begins
July 14—Second Battle of the Somme, and tanks are first used.
August 27—Italy declares war on Germany, and Rumania declares war on Austria-Hungary
August 28—Germany declares war on Rumania
August 30—Turkey declares war on Rumania
September 1—Bulgaria declares war on Rumania

1917

February 1—Germans turn to submarine warfare without restriction.
March 15—Russian Revolution: Czar Nicholas abdicates.
April 6—United States declares war on Germany.
April 9—Panama declares war on Germany.
April 10—Cuba declares war on Germany.
June 25—United States army arrives in France.
July 2—Greece declares war on Germany.
July 22—Siam declares war on Germany.
July 31—Third Battle of Ypres begins.
August 4—Liberia declares war on Germany.
August 14—China declares war on Germany.
October 26—Brazil declares war on Germany.

November 7—Bolsheviks take government of Russia.
December 7—United States declares war on Austria-Hungary.
December 10—Panama declares war on Austria-Hungary.

1918

March 3—Treaty of Brest Litovsk (Bolshevik government of Russia makes separate peace with Germany, giving up vast tracts of land)
March 21—Third Battle of the Somme begins.
June 6—Battle of Belleau Wood begins.
July 21—Allies take Chateau-Thierry.
September 26—Battle of Argonne signals German retreat.
September 29—Bulgaria surrenders.
October 30—Turkey accepts armistice.
November 1—Austria and Hungary become separate countries.
November 4—Austria accepts armistice.
November 9—Kaiser Wilhelm of Germany abdicates.
November 11-- Germans accept armistice.

1919

June 28—Treaty of Versailles is signed.

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Wisdom of the Crowd: Wikipedia Controversies and Coordinating Policies

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Abstract

Focusing on the years 2003-2006 of Wikipedia, this article discusses Wikipedia's institutionalization process, which involved policy-setting with respect to two factors: the coordination of volunteer editors and external controversies. It is the position of this paper that Wikipedia's coordinating policy has to maintain its ideology and cater to the expectations of society. Its overall policy-setting has to respond to controversies, especially when the website's content can threaten the existence of the project. This prompts for an investigation into website-policy setting via a planning versus patching philosophy and an awareness of the multifacetedness of risks.

Introduction

The globalization of information has constructed a 'global village' (McLuhan 1989) that enables massive cooperation. But it can as well lead to massive social conflicts (Carnevale and Probst 1997/2014). The globalization of cooperative knowledge generation (CKG) is more complicated because, in addition to the exchange of information, it further involves the aggregation of individual efforts and hence calls for additional coordination mechanisms. To understand how the novel CKG projects work, we should therefore go deeper than the common cooperative assumptions residing in terms such as cyber 'communities' (Baym, 1999; Bell 2006; Wellman and Gulia 1997) or knowledge sharing (Grabher and Ibert 2014).

This article is an investigation of this aggregation process as illustrated by the case of Wikipedia.¹ Wikipedia started off as a free-to-join project for the construction of an encyclopedia that general public can both use and contribute. Originally a simple website for users to modify its content, its policies are also changing alongside. With exponential growth in both community size and content, these policies have to respond to the wider society (external) as well as within the community (internal), taking their expectations into account. During the period 2003 to 2006, Wikipedia continued its institutionalization, steering through its ideals of free information and global participation on the one hand and commercial viability and academic requirements on knowledge on the other (Costa, Nhampossa and Aparicio 2008; Konig 2013). Having more volunteers can help the project to further expand its scale but also raises the issue of effective coordination and dispute resolution. Its popularity is expanding, but at the same time, it can also get entangled in non-academic realms – political and personal – that generate controversies.

The Problem of Coordination

There is a need for coordination in projects facilitated by both extrinsic and intrinsic motivations, i.e., ranging from corporations to value-driven charities and interest groups. But then came the internet, which can hardly be characterized as a 'project' because its participants hold diverse aims. Nonetheless, netizens come together to form interest groups of historical size in human history. But not everyone participates equally. In the early years of Wikipedia research, scholars were divided as to whether Wikipedia was constructed by 'the crowd' (Surowiecki 2005) or only a dedicated volunteers. While most edits were made by a few volunteers in Wikipedia's early years, Kittur *et al.* (2007) showed that the number of edits made by casual volunteers exceeded that of dedicated volunteers around 2005, and continued to increase afterwards.² In fact, the number of

¹ See Yam (2012a) for the variety of academic disciplines that have studied Wikipedia from different angles.

² Here, casual volunteers / editors refers to editors who made less than 100 edits per month while dedicated volunteers refers to editors who made more than 10000 edits per month, following Kittur *et al.*'s (2007) categorization scheme.

casual editors has increased from the thousands to hundreds of thousands for the period 2003 to 2006, while, during the same period, the number of dedicated editors has only increased slightly (from nearly a hundred to a few hundred) (Kittur et al. 2007). Taking on a new scale, the coordination of volunteers would require a major paradigm shift given that the project has transformed from a small workforce to another with many participants each contributing a little.

Group failures can arise even in small groups. For example, the pitfall of groupthink (Janis 1972) can weaken critical thinking and jeopardize output quality. But then as people continue to sign up, coordination would have to facilitate mass consensus (in times of dispute) and division of labour (Reagle 2010; Surowiecki 2005). While the earlier operations literature gave us the 'iron triangle' of efficiency – schedule/time, cost and quality³, the top-down approaches of the commercial sector are probably less applicable to voluntary projects are different, for the latter relies on intrinsic motivation (Zhang and Zhu 2006). Jha and Iyer (2007) identified three factors that promote the iron triangle: commitment, coordination, and competence. Yam (2012, 2013) has discussed Wikipedia's early attempts in commitment (attraction to and remaining in the project through motivation) and competence (the need to attract experts from all walks of life). But coordination is a delicate issue, for it changes over time as Wikipedia institutionalizes and expands.

Ongoing disputes can develop into 'edit wars' and, in the case of rule-setting, protests against new policies. Disputes can also involve the developer. For example, disagreements over the style of leadership between 'elitism' and 'anti-elitism' (e.g. tolerance of trouble maker or an openness to anyone who would like to participate) has led to the Wales/Sanger split in 2002 (Yam 2013). In the case of edit wars, editors revert each other's changes over and over again and coordination breaks down as there are no further attempts to reach a consensus given participants' diverse interests, values and writing styles. Aggregation of efforts is therefore incidental – article evolution

While this has simplified Kittur *et al.*'s original study and neglected the middle-range editors, the point here is the substantial increase in casual volunteers' editing.

³ Discussion and a critique of the iron triangle can be found in Atkinson (1999).

varies significantly depending the kind of people participating and the order of unfolding events (e.g. editing and discussion). Spending too much time on persuasion and debates and having too many viewpoints and styles can lead to mutually negating editing directions, eventually suffocating the project. As the community continues to expand, cohesion can no longer be maintained by a few dedicated volunteers who know each other. The need to cater for outliers – harnessing the wisdom of experts (of both pop culture and academic knowledge) and preventing the problems brought about by trouble makers – is only more urgent.

Hence, effective cooperation in everyday life requires mutual understanding but institutional cooperation requires more. Our industrial society is championed with two such institutional innovations: bureaucracy and division of labour. Wikipedia's institutional division of labour consists of guidelines to the question of who to do what and how, which are especially important for newcomers but excessive regulations can lead to learning curve problems. Besides regulations, the question of what ought to do can also be advisory, as in the 'Things you can do' box, the most visible box in the Community Portal.⁴

Division of labour can be explicitly regulated or implicitly attained. Kittur and Kraut (2008) praised the success of implicit coordination – the project is most effective when only a few dedicated volunteers make major contributions while all the rest only support. This implies a social hierarchy with two levels. Social hierarchies can self-reproduce through belief systems that maintain stability (Magee and Galinsky 2008). When these autonomously forming social mechanisms is beneficial to article editing e.g. for sake of social cohesion (Kanter 1968) and quality control, policies can further sustain these desirable mechanisms through explicitly stated editing privileges⁵ and promotion rules⁶.

⁴ The Community Portal is the entry point for Wikipedia editors to interact. For an example of its 2004 version see:
http://en.wikipedia.org/w/index.php?title=Wikipedia:Community_portal&oldid=2446335

⁵ <http://en.wikipedia.org/wiki/Wikipedia:Administrators> accessed 1 Apr 2015

⁶ http://en.wikipedia.org/wiki/Wikipedia:Guide_to_requests_for_adminship accessed 1 Apr 2015

But there is a limit to policy setting. While, theoretically, Jimmy Wales as the Wikipedia's web developer can implement policies at will, these policies can impact the social structure and composition of people that Wikipedia can sustain and attract. Policy changes thus involve risks. People are used to everyday routines – a conservative tendency against changes. The heightening of the social hierarchy can also destroy the once friendly and egalitarian environment / atmosphere of Wikipedia, leading to low editor satisfaction and commitment, scare newcomers away, and 'cognitive rigidity' in problem solving (Billings and Watts 2010; Carnevale and Probst 1998). As in social movements, continued participation depends on collective identity (Sturmer and Simon 2004) and frame alignment (Snow *et al.* 1986) contributing to a sense of meaningfulness of the project – in the case of Wikipedia, the ideals of free information and the generation of such (Konieczny 2009). It is the intersection of this crucial ideal and ease of contribution that renders Wikipedia different from other online encyclopedias such as the academic-driven Britannica, the expert-reviewed Citizendium (O'Neil 2010) and the commercial Encarta and Knol.

The ease of contribution can vanish when people are excluded or restricted from editing (i.e., blocked or anonymous users) or when Wikipedia is adopting more 'protection and maintenance' over the years (Goldman 2009; West and Lee 2012a).

Wikipedia's social hierarchy defines editing privileges and is decided by in-project merits rather than credentials. It might seem that Wikipedia's promotion system would then radically count on textual validity – a focus on what is written, not who wrote it. But identity does emerge in the project. For example, Collier *et al.* (2008) showed that quite a few 'easily available public metrics' (as revealed through the participation in editing and discussions) as revealed in candidates' past history are decisive factors in adminship promotions. Ironically, while this system is characterized as 'anti-elitist' (e.g., Sanger, 2004), its validity rests on the knowledge society, that people are generally educated to be able to engage in knowledge-generating discussions and have a basic sense of academic integrity. Finally, Wikipedia is forming an increasingly taller social

hierarchy⁷ over the years. At the lowest end is the exclusion of troublemakers resulting in blocked users. On the other is the invention of rankings such as administrators, bureaucrats, stewards and so on with ever-differentiated editing privileges⁸ as well as functional roles (Arazy *et al.* 2015).

Mechanisms of Coordination

If the collective determination of adminship has to rest on merit, a considerable number of editors have to take adminship candidates' past / expected contributions into account. This can be a problem, for the interest of volunteers (under a rational choice assumption) may misalign with the project's goal (e.g. free information and encyclopedic knowledge) – self-interest can entail non-academic intentions. But this collective decision process is in nature different from societal elections, for the government works for the society that elects it but encyclopedia admins do not work for the editing community. Rather, admins and ordinary editors work together for the healthy construction of an encyclopedia, which can then contribute to the society in diffused and indirect ways. Moreover, volunteers of Wikipedia come and go. Consensus results cannot represent potentially large numbers of ex-volunteers who leave the project, meaning that a casual loop might emerge between the creation of undesirable editing experiences and volunteers leaving the project. Consequently, instead of representing the interest of the crowd, there has to be something else in CKG for its consensus mechanism to work. Otherwise, the system simply breaks down as an impossible project as suggested by critics of consensus-based knowledge systems (e.g. Sherry, 2007).

We can understand this 'something else' by taking a deeper look at the variety of Wikipedia's consensus mechanisms. While voting (in the sense that the majority automatically wins without further criteria) is among one of them (e.g., as discussed in Yam, 2013), it is actually the least used mechanism in the community. The other two, more common mechanisms are *discussion* and *enforcement*. Discussion consists of editors commenting on

⁷ A discussion on Wikipedia's social hierarchy can be found in Niederer and van Dijk (2010).

⁸ To see a list of user groups with their editing and operational privileges, see http://meta.wikimedia.org/wiki/User_groups

various talk pages (e.g. article talk pages, essay talk pages, guideline / policy talk pages, as well as some other meta-content deliberations such as Articles for Deletion) so that diverse viewpoints can be debated. While discussions can settle some disputes, they alone cannot guarantee consensus.

This is where our second consensus mechanism comes into play: enforcement, which follows from institutionalization and the power hierarchy we have discussed above. The promotion system (Requests for Adminship) is also an enforcement procedure – in this process, instead of ‘voting’ (although this misleading word is sometimes used in the community), editors leave a comment together with their ‘vote’ / stand (support, oppose or neutral). Upon closing, a bureaucrat (a rank above the admins) will review these comments to decide whether to grant adminship. Several numbers come into play: those with over 75% (Collier *et al.* 2008) or 80% support⁹ tend to get promoted while those below 70% tend to fail¹⁰. These numbers are not enforceable, hence, the granting of adminship only rests on the supposed expertise of bureaucrats and reasons provided by editors (Collier *et al.* 2008).

Finally, voting is used for the election of the Arbitration Committee, which was originally appointed by Jimmy Wales in 2004 to help manage the project. Voting was introduced later to fill vacancies¹¹. With the Wikipedia community becoming more sophisticated over the years, value-based coalitions have also emerged. As in societal elections, these coalitions can affect Wikipedia’s voting results (Cabunducan *et al.* 2011). Coalitions gather people with similar viewpoints for effective mobilization and provide a platform for discussion. They also undergo their own micro-institutionalization within the Wikipedia community.¹² They are most visible in times of debate, such as the userbox

⁹ As suggested by Wikipedia editors as of early 2014:
http://en.wikipedia.org/wiki/Wikipedia:Requests_for_adminship accessed 22 Jan 2014

¹⁰ Ibid.

¹¹ http://en.wikipedia.org/wiki/Wikipedia:Arbitration_Committee/History accessed 22 Jan 2014

¹² E.g., forming ‘associations’:
http://meta.wikimedia.org/wiki/Association_of_Deletionist_Wikipedians and
http://meta.wikimedia.org/wiki/Association_of_Inclusionist_Wikipedians

controversy (Westerman 2009), the inclusionism vs. exclusionism debate and so on.

It is by no coincidence that the three consensus mechanisms parallel with those of industrial society: everyday casual problem solving, bureaucracy, and political elections. But the 'bureaucracy' / enforcement is more spirited in this case, for editors from different ranks have to work together in this voluntary project. The renaming of the article deletion process from Votes for Deletion to Articles for Deletion (AfD) reinforces this point: admins have to make decisions based on the information provided by other editors rather than a mere count of 'delete' / 'keep' votes. This requires editorial expertise from both admins and editors together with their ability to make valid and convincing arguments.

Expertise and experts exist in the crowd and, unlike academia, Wikipedia as a crowdsourcing system (O'Neil 2010) places minimal restriction on the scope of knowledge they produce or the ways of generating it. Surowiecki (2005) proposed four criteria for 'wise crowds': diversity of opinion, independence, decentralization and aggregation (see also Oinas-Kukkonen, 2008). As we have seen, aggregation is not just the simple collection of bits of content written by many volunteers each contributing in isolation. It is a combination of bottom-up (election of the Arbitration Committee) and bottom-up-down (elected committee members granting privileges based on editors' opinions) practices. However, in the case of external controversies, these slow processes are less helpful to the urgent situation at hand. In these times, the top-down approach steps in: Jimmy Wales would try to solve the problem by proposing new policies and hopefully regain public confidence (as in the 'Biographies of Living Persons' policy¹³ following the Seigenthaler incident¹⁴ [Joyce, Butler and Pike 2011]). This creates a need for the community to further monitor these policy suggestions to prevent rush decisions and ad-hoc fixes that can

¹³ http://en.wikipedia.org/wiki/Wikipedia:Biographies_of_living_persons accessed 1 Apr 2015

¹⁴ The Seigenthaler incident involved an anonymous prank played on the journalist Seigenthaler by creating a biographical page of him with untrue content.

create additional, unintended problems. In this aftermath period the wisdom of the crowd thus still comes into play.

Controversies and Resolving Policies

Controversies follow popularity. Victims and critics of controversies can be unhappy with the presence (in cases of contentious information) or absence (in cases of banning non-academic articles such as advertising efforts) of information. When the controversy involves legal issues or public confidence, the legitimacy of Wikipedia's policy and content would be at stake. Here, we'll review a number of incidents involving Wikipedia during 2003 and 2006. These include the 2005 Seigenthaler incident (Joyce, Butler and Pike 2011; O'Neil 2010), the 2006 congressional staff edits¹⁵ (West and Lee 2012a), and the 2006 WIF page¹⁶ (Tabb 2008).

Each of the three incidents involves a different kind of non-academic intention. This reflects the multifacetedness of risks Wikipedia faces. In the Seigenthaler incident, it was vandalism: the joy of creating a hoax while neglecting the feelings of the victim and serious consequences that could be brought back to the vandal. The congressional staff edits are political propagandas and, in a wider context, highlight the implicit role of the government over the internet for the promotion of their coalitions through praises and condemnations. The WIF page represents potential advertising effort and possibly breaches other Wikipedia policies, such as verifiability, notability, neutrality, and in general, conflict of interest (Tabb 2008).

These problems are neither novel nor exclusive to Wikipedia. Hoaxes, propagandas and soft advertising have been with us for millennia. It is the popularity of Wikipedia that has expanded the damage of misinformation, but this also means that people have to trust on its content in the first place. The human brain is known to be proficient in noting patterns and

¹⁵ The congressional staff edits involved congressional staff from the US modifying the content of some Wikipedia articles, removing unfavourable information from and adding positive information to some articles of congress members (West & Lee, 2012).

¹⁶ The founder of World Innovation Fund (WIF) created a Wikipedia article for the fund in 2006. After some discussions, Wikipedia editors suspected that the organization might be a fraud and suggested that many of the article's claims could not be verified. After a lengthy debate, the page was eventually deleted.

making decisions with uncertain information. As humanity enters the age of information explosion, there is a need to develop a kind of critical thinking that can process such vast amounts of uncertainty. But this does not mean that there is nothing we can do to improve the reliability of information sources besides swimming in a whirlpool of chaos. Quite the contrary, there are tremendous efforts in the development of tools and management systems to improve CKG's content quality (Adler, de Alfaro, Kulshreshtha and Pyey 2011; Adler, de Alfaro and Pye 2010; Chandy 2008; de Alfaro and Ortega 2009; Dondio *et al.* 2006; Lucassen and Schraagen 2011; West and Lee 2012b; Zeng *et al.* 2006). The opposite approach would be to forbid content generation and put a halt to CKG altogether, as in the advocacy to further regulate / censor information activities, or to hold service providers liable as a solution to vandalism (Seigenthaler 2005). People should be responsible for their own speech – this is what defamation laws have been enforcing for many years. But the regulation of information technology, as automated systems that enable communication, is a different story. Instead of trying to improve content quality, this mindset blames the whole of content generation and compromises both reliable and unreliable content, or, as the old saying goes, to throw the baby out with the bath water. The solving of problems by creating catastrophes is what we witness in the 20th century both as unintended consequences and as the consequences of the totalitarian tendency of the human brain that materializes from time to time in history, sometimes manifesting as major catastrophes if left to evolve on its own. It does not solve problems. It destroys the possibility of problems of life by forbidding the life worth living.

On the other hand, victims do suffer when false, contentious content gets to spread. These damages are outside the logic of mass CKG, because its solution is to simply correct the mistake, improving the encyclopedia continuously – the 'neglect of the crowd' is to be corrected with care and wisdom. But we cannot wait for the encyclopedia to be 'finished'; this would never happen. Damages are here and now, and forthcoming improvements to the encyclopedia does not help the situation now. Academic encyclopedias, on the other hand, do not face a similar problem because the public can only access their end

products: effective quality control before publication can prevent damages. But Wikipedia is both the end product and the raw material: it is its 'plausible promise' (Raymond 1999:37) of ongoing production that attracts participants. Consequently, Wikipedia content is both reliable and unreliable, and proponents and critics are free to stand on their favourite spots of the spectrum. This raises the possibility of a *legitimacy lag*, the fact that the public may, based on past events, perceive it as possessing too much or too little legitimacy.

External controversies have led to tighter control of the article writing process and rules that target non-academic intentions. Anonymous users enjoy less editing privileges – in fact, they are now forbidden to create articles (Hatcher-Gallop 2009). Admins can also add a variety of 'protections'¹⁷ to articles, which forbid casual edits especially in times of much vandalism or edit wars (Loubser and den Besten 2008). There are also new ranks above the admins, for example, 'oversighters', who can make content (e.g. past article versions) hidden from the public.

Exclusion of the lower end of the social hierarchy in article-editing reduces the risks brought about by non-academic intentions. Joyce *et al.* (2011) developed four approaches from the risk-management literature to reduce risks of biographical content: risk avoidance, risk minimization, threat reduction, and conflict management. While these measures can minimize or even completely eliminate such risks (at the expense of knowledge), the implications is that biographical knowledge is a separate category that should be handled with care. This special treatment raises the tension between the encyclopedia's academic endeavours (presentation of facts) and user satisfaction (desired portrayal irrespective of factuality). The aspiration to reduce risk also invokes the unending debate between inclusionism and deletionism, because it constitutes a point for the latter – when in doubt, content should be deleted to avoid trouble. But it also means that the public cannot access potentially useful information (doubtful does not equal false) and the ongoing improvement would come to a halt if raw materials are not (publicly) accessible. A compromise here would be the

¹⁷ A list of protections enforced in Wikipedia can be seen at: http://en.wikipedia.org/wiki/Wikipedia:Protection_policy

use of 'intellectual health labels' appearing at the top of articles (e.g., boxes stating 'This article may contain improper references to self-published sources.'¹⁸, 'This article needs additional citations for verification.'¹⁹ and so on). Besides prompting editors, they also remind users that their use of the information is 'at their own risk' and alert them to specific risks.

The 2006 Congress staff edits incident has a rather different outcome. These edits were reported by the media (Anderson, 2006; West and Lee 2012a), followed by an investigation by Wikipedia editors who then reverted the edits. Similarly, the WIF page in 2006 was eventually deleted. In this case, the deletion of doubtful articles and increasing monitoring or blocking of certain IP addresses have been successful, with the general public cooperating with and providing information to the editors. This social dimension is accompanied with the development of software tools such as bots, which monitor articles against vandalism. On the other hand, the techniques of circumvention improve over time; hence, there is a constant need to improve these social systems and tools to match the competition.

Discussion

Wikipedia faces a series of risks regarding external controversies. As an ongoing public project, false and contentious information would appear in it from time to time. While editors can set off to correct misinformation, others might instead wish to put a stop to the project entirely, for example, by holding the project liable for damages. Ongoing projects thus share additional risks compared to those with one-time outputs, such as academic publications. The general public contains all walks of life, many of whom do not share the academic intention of building an encyclopedia of ever-rising quality. Non-academic intentions such as vandalism, propaganda and advertisement generate further risks for Wikipedia.

The tighter control over non-academic intentions does have its drawback when it comes to Wikipedia's ideals and volunteer identity. Suh *et al.* (2009) showed that the growth of the

¹⁸ An example: http://en.wikipedia.org/wiki/Quantum_gravity accessed 2 Apr 2015

¹⁹ An example: [http://en.wikipedia.org/wiki/Wells_Street_\(Chicago\)](http://en.wikipedia.org/wiki/Wells_Street_(Chicago)) accessed 2 Apr 2015

Wikipedia community has ceased to be exponential, suggesting that it may have plateaued. They attributed this to the possibility of fewer chances of sharing knowledge or increasing stress on its sociotechnical system. There is also a possibility of a shortage of labour now that Wikipedia has more institutional rules and consequently appears less friendly to newcomers, and, thus, may fail to handle the great amount of contributions and differentiate academic from non-academic contributions. This can overwhelm the capacity the community, just as how the Open Directory Project has fallen (Goldman 2009). With more policies focusing on control rather than enabling of editing, Wikipedia comes to look more and more like commercial firms (Loubser and den Besten 2008) and academic institutions. The reverse is also happening: research has investigated the application of the Wikipedia model, 'wikinomics', to business (Tapscott and Williams 2007) and academic institutions (Staley 2009).

While being a workable case among many failed endeavors of online encyclopedia, Wikipedia's institutionalization is still on a path of turbulence subject to pressure from multiple interests and intentions, many outside its control. Contrasting this pessimistic view is the ongoing social and technological research to improve the efficacy of CKG, which not only benefit encyclopedia construction but also open up opportunities for the institutional design of future CKG projects.

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Peer Tutoring in the Multi-Ability Classroom: A Study of Middle School Teachers

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Abstract

The authors examined teachers' attitudes toward the implementation and effects of peer tutoring in multi-ability middle-grade classrooms. Four themes emerged from the data: (1) Educators find that multi-ability classrooms require differentiated instruction to be a successful teaching strategy among lower level students. (2) Peer tutoring perceived as a beneficial teaching strategy for low achieving students. (3) Students respond to peer tutoring more positively than they respond to teacher instruction because of possible intimidation by teachers in the classroom. (4) A sense of community in the classroom, which creates a family-like atmosphere, is essential to successful peer tutoring.

Introduction

Most middle-school teachers seek to provide students with a sense of *community* within the classroom, which fosters learning at all levels of learning. With the increasing diversification of K-12 students in the US and the increased pressure on teachers to help students reach predetermined test-score standards, potential problems associated with different levels of mastery and cognition among students exist. According to Wang (1984), a significant factor in transmitting knowledge is the diversity in the requirements of each student for achieving given, prescribed outcomes. Thus, teaching to each student's capabilities has continued to pose problems for teachers.

While every classroom situation and cognitive composition is unique, the potential use of peer tutoring in a multi-ability classroom provides an educational bridge for students with diverse educational needs. According to Thompson (2011), peer tutoring defined as “the process of one student offering help and remedial instruction to another student near the same age level.” In addition, a multi-ability classroom is a classroom of students of varying ages and levels of academic ability and with varying experiences.

Over the past 40 years, a renewed interest in the concept of peer tutoring in the multi-ability classroom. Historically, the one-room schoolhouse, the model of education in the early stages of education, in America, had one teacher and several students spanning across the grade levels. Students learned in the same classroom and from one teacher, with the ultimate goal of content mastery for each student. With today's public school classrooms reaching their capacity, students in the same classroom differed in cognitive levels, content mastery, skill-mastery level, and/or educational ability. This level of cognitive diversity required older students provide remedial teaching to their peers (Rekrut, 1994).

In today's classroom, peer tutoring largely exists due to two factors: social promotion and the mobilization of society. According to the U.S. Department of Education (1999), social promotion is “allowing students who have failed to meet performance standards and academic requirements to pass on to the next grade with their peers instead of completing or satisfying the requirements” (p. 5). Also, considering the increased numbers of students relocating, state standards internalized in one school system may differ from those expected at the new school in terms of content and level of mastery.

Gaustad (1993) describes one of the potential misconceptions of peer tutoring, stating “simply putting two students together will not result in successful tutoring. Untrained tutors, whether adults or students, may resort to threats of punishment and scornful put-downs” (p. 3). The result of this lack of training is that some teachers try various forms of peer tutoring but become frustrated, never viewing it as a viable option. Gordon (2005) explains the reason some teachers fail to utilize or have a difficulty utilizing peer tutoring: “One of the chief

obstacles is the difficulty in overcoming the entrenched culture of schooling” (p.14).

Regardless of the lack of understanding by many educators, peer tutoring is effective in several subjects, such as music, mathematics, reading, and other subjects with teaching processes identified by the students in the class. As Elliot (1973) notes, structured tutoring, while providing the student tutor with the systematic and scientific approaches to learning advanced by Skinner retains the positive qualities of human interaction and socialization (p. 537). More recently, Sheldon (2001) remarks that peer and cross-age tutoring, characterized by children teaching other children have many benefits. Peer tutoring provides increased levels of student achievement, problem-solving skills, independence, and self-initiative for tutors and tutees (Author, 2011, p 33).

Purpose

As dynamics in the classroom continue to change and more classrooms become multi-ability classrooms and considering programs such as No Child Left Behind that enforce the same learning goals for all students in a classroom, teachers must discover and employ teaching strategies to meet the needs of all of their students, despite their individual grade levels. Therefore, in the current study, we sought to determine perceptions held by junior high and high school teachers regarding the effectiveness of peer tutoring in the management of multi-ability classrooms. More specifically, the purpose of this study is to investigate the following: (1) what are the perceptions of middle school teachers in regards to how multi-ability classrooms modify the preparation? (2) What are the perceptions of middle school teachers regarding tutoring and implementation in the classroom? What are the perceptions of middle school teachers with regard to peer tutoring as an effective teaching strategy? (3) What are the perceptions of middle school teachers with regard to peer tutoring as an effective teaching strategy? And (4) what are the perceptions of middle school teachers regarding peer tutoring and its effect in the classroom?

Method

Understanding teacher behavior as influenced by perception or personal meaning has the potential to increase educators' effectiveness in predicting learning outcomes and promoting students' classroom learning and academic motivation (Chiodo & Byford, 2004; Zevin, 1983). To capture teachers' individual perceptions of peer tutoring, we used a phenomenological research design with the intent to examine individual experiences and attempt to understand these experiences (Creswell, 2007; van Manen, 1990).

The sample of twenty-one participants consisted of two groups of middle school teachers, one group from a public school and one group from a private school. The two schools were purposively selected due to similar demographic characteristics, including location, teacher-to-student ratio, and socioeconomic level. Both schools located in a community with a population of approximately 700,000 permanent residents that considered "progressive" and has historically supported both public and private education.

The public middle school is 1 of 14 middle schools in the county school system, with 380 students enrolled in grades 6 through 8. The faculty consists of 16 teachers and 4 specialists. Seventy-five percent of the faculty has 10 or more years of teaching experience, and 65% of the teachers hold advanced degrees. The average student-to-teacher ratio is 17:1.

The private middle school is 1 of 32 private schools providing middle school education. The population of the school includes is around 780 students, with 170 students enrolled specifically in the middle school. The teachers, on average, have around 16 years of experience, and over 35% of the teachers hold advanced degrees. The average student-to-teacher ratio is 9:1.

Participants selected using a purposeful sample approach, and each teacher-participant interviewed so that we could determine his or her perceptions of peer tutoring. Interviews conducted in March and April of 2011 and the teachers' responses probed for clarity and comprehension. Personal and self-perceptions encouraged. Questions to guide these interviews developed according to information found in the literature (see appendix A). Interviews recorded and coded and

emergent themes noted. Then, corroborating themes established within the first bound system (public middle school teachers) through triangulation and field notes. The same process completed the second bound system (private middle school teachers). In addition, similarities and differences between the two groups.

Findings and Discussion

The purpose of the current study was to explore middle school teachers' perceptions of peer tutoring in the multi-ability classroom. Four dominant themes, developed from the frequency of data and the uniqueness of participation feedback, emerged from the study. The first theme suggested that educators find that multi-ability classrooms require differentiated instruction. The second theme indicated that peer tutoring is indeed an effective teaching strategy. The third theme suggested that students respond to peer tutoring in a more positive manner than teacher instruction because of possible intimidation by teachers in the classroom. The final theme indicated that a feeling of community among students fostered a positive learning environment.

The first theme identified during data analysis was: Educators find that multi-ability classrooms require differentiated instruction to be successful in teaching students below grade level. Both public and private school participants gave personal accounts of the wide range of abilities in their classrooms and expressed the difficulty involved with multi-ability classrooms and the frustration of balancing the students' educational needs, e.g., weekly academic goals, school requirements, and testing requirements of lower performing students while simultaneously keeping higher performing students motivated. There is an ongoing burden carried by both public and private school teachers – that they have effectively instructed all students in the class. Fredrick, a private school teacher, explained that he believed teachers must do whatever they can to reach each student, regardless of the student's ability level.

Well, I think part of that is the responsibility of the teacher to make that situation work. If I'm a teacher, I'm never going to belittle anybody. So if I do have a child that is below grade

level, it is my responsibility to get them to grade level by any means.

Both public and private school teachers agreed that group lecture and instruction failed when classroom dynamics reflect a difference in upper- and lower-ability students. Taylor (pseudonym), a teacher from the public/private school, stated:

It affects me tremendously because every lesson organized to reach every student. So, I find myself having to do many, many hours of planning because I am extremely perceptive and aware when the child steps into my room where they are because I have looked at all the data. So I know that child's weakness, and I know the other kid's strength. So I know that it is my responsibility to make sure that every child has at least so many grades 120 above where they are at the present time and then I have those who are three or four grade levels high. They are 11-years-old and here they are taking high school math. So it is my responsibility to challenge that student.

This response, along with some of the other responses, reflects Tomlinson (2001), who believed that differentiated instruction is noteworthy because of future knowledge based on past knowledge and because not all students in a classroom have the same level of understanding. The importance of differentiated instruction observed by Gregory and Chapman (2002), who state that all students do not learn the same things in the same ways on the same days. As educators, we must consider each child in the learning community based on his or her needs and based on a student's readiness, preferences, and interests (p. 11).

It was no surprise those teacher participants from both the public and the private school utilized peer tutoring as a multi-ability classroom concept; however, the scope and degree of variance in reading comprehension levels, math scores, and grade-level standards within these classrooms was alarming. Thirteen teachers stated that they had a multi-ability classroom last school year; two teachers from the public school shared that they had at least one student that was two grades behind, and

one teacher mentioned having a student three grade levels behind in reading.

The second theme identified during data analysis was: Peer tutoring perceived by both the public and private school teachers as an effective teaching strategy, being potentially beneficial to students at low ability levels. Teachers from both schools indicated a familiarity with peer tutoring and had students at different levels of achievement within the same classrooms. In addition, teachers from both the public and private school saw a need for peer tutoring due to the range of ability levels in the classroom.

Public school teachers favored the use of peer tutoring based on its effective use in the past school years. Six of nine private school teachers supported the use of peer tutoring, with three teachers reporting that they had used peer tutoring during the previous school year. Public school teachers discussed that supplemental work required organization and additional time. Private school teachers supported the theory of peer tutoring, yet they questioned its success based on classroom dynamics. Only two private school teachers that had utilized peer tutoring in the past supported its use in the classroom.

The third theme identifies students respond to peer instruction because of possible intimidation by teachers. Teachers from both the public and private school expressed this belief, with both male and female teachers suggesting that students intimidated by teachers and have difficulty interacting with them. This perceived intimidation can be associated with two cases:

(1) Students felt intimidated because they believed the teacher was an 'enemy' and did not feel comfortable with their interaction. Sharon, a 6th-grade math teacher, introduces the idea that teachers were sometimes perceived as enemies or adversaries from past experiences. She stated:

Fear. A lot of students are afraid to come and talk to the teacher. Some time they've had teachers in the past that do not want them to ask questions. They do not want them to come for help. Sometimes they are embarrassed because "it makes me look dumb if I have to go and talk to the teacher",

where if they are talking to another student, the threat factor is not there.

(2) Students did not feel comfortable around teachers due to a pre-existing apprehension with school.

Private school teachers said that students indeed feel intimidated by teachers, further stating that students viewed the teacher as an adversary that they must avoid. Two public school teachers described this fear of teachers as one produced by students concerned with responding incorrectly when called on in class. Tammy, a 6th-grade math teacher, noted:

...some kids are intimidated I think. You hate to think that they might be, but I think that is true sometimes. Just they have a better rapport sometimes with kids; they feel more comfortable. They do not feel judged or that they are going to have the wrong answer. Some of them just like being with their friends. So if, they have a chance to do that, then they are not going to mess that up.

The fear of academic “performance” in front of teachers and classmates can be observed at the middle school level. Teachers from both schools indicated that students were more comfortable around peers than instructors in peer-tutoring relationships. Teachers also suggested that students could relate to a peer more effectively than a teacher.

The fourth theme identified in the current study was: Community in the classroom, which creates a family atmosphere, is essential to the success of peer tutoring. Teachers in both the public and private school identified a perceived sense of community as a valuable component of students’ academic success. Fifteen teacher participants agreed with this, saying that a lack of this sense of the community could impede or even prohibit learning. A community of success was reiterated by participants, in which the teacher’s goal for students is to have small successes along the way as encouragement. Private school teachers felt that a positive learning environment was the catalyst for successful learning, but they were not abundantly clear on the elements or characteristics. This ‘elements or characteristics’ ambiguity of the positive learning

environment results from private school teachers' lack of experience with peer tutoring as well as their lack of exposure to the concepts necessary to create effective learning communities, these concepts discussed in the college programs of public school teachers.

Public school teachers identified the importance of this sense of the community to student success, stating that the relationships within these learning communities should resemble those found in the family. This "family" concept was a common theme among public school teachers when a sense of community discussed. This family-like atmosphere includes a learning environment where students are safe to seek additional help and get answers to questions without the fear of humiliation. Teachers from both the public and private settings believed that when students feel safe in the classroom, they have no problems with asking for help and have the potential to achieve greater levels of knowledge.

Freedra, a geography teacher from the public school, described the facets of family and community in the classroom:

In fact, I'm teaching community right now. I'm teaching the Holocaust and all that in my classroom, and it is enormous. They have to trust each other. I teach them community is a family. It is a family whether it is their peers, whether it is their family at home, whether it is their best friends. If you do not feel trust, they are not going to put all of themselves out there. So the community feel in the classroom they have to be able to trust each other that when people walk out in the hall if there's been peer tutoring, just like we've talked about that a peer is not going to go out and say someone does not know any of this. If they have that community feel and that trust issue I think they are going to open up and let them learn.

The expression of the sense of family and community, as expressed by Freedra, is valuable in all levels of education, but especially during the middle school years. According to Wormeli (2011), it is during the 10- to 15-year-old time frame that the prefrontal cortex does develop; this is the area that controls decision making abstract thought, planning, words, and actions.

This stage of development, in conjunction with a safe, family-like atmosphere, is crucial during the middle school years. It is also during this time of development that a student's academic performance may be inconsistent. While the responses of the public and private school teachers rest on personal experiences with peer tutoring that these teachers brought into the classroom, it was obvious that private school teachers see the significance in the idea of the community but based more on the theory than on experience. Public school teachers' ideas concerning community acquired through practical knowledge of community and its parameters that include family characteristics.

Conclusion

Peer tutoring as a strategy to help offset the inequities found in the multi-ability classroom, although used by both public and private school teachers and a part of a "normal" classroom, was more prevalent among public school teachers than private school teachers. Further inquiry revealed the private school setting that did not utilize peer tutoring; resulting directly from their lack of exposure to this strategy during college and graduate school. Some private school teachers enter into the classroom with degrees in the subject matter, not degrees in education, thus limiting exposure to peer tutoring if there is any exposure at all. However, this deficit can be eliminated through in-service teacher training on peer tutoring principles as well as other strategies that could be useful in the classroom.

Another key element in the discussion of peer tutoring and the multi-ability classroom is the importance of a sense of community. Both public and private school teachers stressed the need to create a sense of community among students despite cognitive ability or content mastery levels. Students that need additional help should be identified within the classroom, and a supportive learning community can be successfully cultivated and implemented by teachers.

As class sizes increase and budgets decrease in the U.S. education system, strategies to help both students and teachers navigate the challenges in multi-ability classrooms must be continuously discovered and used. This study suggests a use of a strategy introduced in poor communities in London, England, and implemented in America at the turn of the 20th century to

provide much-needed help for low-performing students in multi-ability classrooms. The researchers do not suggest that peer tutoring can or will be successful for all students in a class. However, teachers who use peer tutoring, as well as those who at least try it, see positive results across the spectrum of learners.

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Reading between the Lines: Long-Term Impact of Scholastic Read 180 on Adolescent Readers

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Abstract

The purpose of the study was to determine long term impact on reading achievement after a student left the Scholastic Read 180 program. The study entailed the examination of Scholastic Read 180 scores for secondary students from sixth grade through twelfth grade years. It included data from 2009-2010, 2010-2011, 2011-12, 2012-2013, and 2013-2014 school years. The setting was three school corporations in northern Indiana. Only middle school and high schools that used the Scholastic Read 180 reading program were selected. Additionally, only schools that continued testing after the students were removed from the program were used. The school corporations were comprised of a varied demographic population and school size. A left-tailed t-test for paired means was conducted on the difference in Lexile change post enrollment in Scholastic Read 180 compared with during enrollment in Scholastic Read 180. The alternate hypothesis that once someone left the Scholastic Read 180 program the average Lexile reading level growth rate would significantly slow or stagnate was found to be true. The null hypothesis that reading scores continued to increase at the same growth rate after being removed from the Scholastic Read 180 program as when the student was enrolled in the Scholastic Read 180 program was therefore rejected.

Introduction

Research indicated that reading ability could determine one's chances to get a job, to function in society, and to feel confident in one's own abilities (Rubin, D. H., Erickson, C. J.,

San Agustin, M., Cleary, S. D., Allen, J. K., & Cohen, P. (1996). Sparks (2011) noted in this regard, "A student who can't read on grade level by third grade is four times less likely to graduate by age 19 than a child who reads proficiently by that time, according to a new study. Add poverty to the mix, the report concluded, and a student is 13 times less likely to graduate on time than his or her proficient and wealthier peer" (p.5). According to the Indiana Department of Education, reading was the foundation for learning and meaningfully pursuing goals and aspirations (www.doe.in.gov). In 1999, The International Reading Association's position statement on adolescent literacy suggested that adolescents deserved access to a wide range of materials, instruction that included both skill development and motivation, assessment that showed their strengths as well as needs, instruction in comprehension strategies, and reading specialists to help struggling readers (Pitcher, Martinez, Dicembre, Fewster, & McCormick, 2010; Moore, Bean, Birdyshaw, & Rycik, 1999).

Research also showed that the nation and most states have long struggled to help students meet reading standards (Bean, R., Swan, A., & Knaub, R., 2003 and Beers, K., 2003). The Indiana Department of Education, for example, created an assessment that required students to pass a reading proficiency by third grade. One reason for this intentional focus was related to Indiana Department of Education research shared on the DOE website that stated that neglecting students' literacy had serious economic consequences for individuals and states. Classroom teachers would be more likely to meet the learning needs of every student if they were knowledgeable of and skillful in content literacy practices (Alvermann, Swafford, & Montero, 2004; Duke & Bennett-Armistead, 2003). Some researchers, such as Loewenberg Ball & Forzani (2010) speculated that even still, when it comes to literacy instruction, teacher preparation programs did not seem to have a handle on how to prepare teachers for the classroom. Deficits in basic skills cost the nation's businesses, universities, and underprepared high school graduates as much as \$16 billion annually in lost productivity and remedial costs (Alfred, M. V., & Chlup, D. T. 2009). All schools were faced with the obstacle of what to do with secondary

students who were reading significantly below grade level but were in the high school classrooms.

Scholastic Read 180

One structured programmed reading instruction curriculum used by many middle schools and high schools was Scholastic's Read 180. This program, according to the Scholastic website, "was the most effective reading intervention program, was a comprehensive system of curriculum, instruction, assessment, and professional development proven to raise reading achievement for struggling readers in grades 4–12+. Designed for any student reading two or more years below grade-level, READ 180 leveraged adaptive technology to individualize instruction for students and provided powerful data for differentiation to teachers." The program required very structured, time-intensive implementation. According to the Scholastic Read 180 website (teacher.scholastic.com), one such implementation model for a secondary 90-minute block included the following components:

- Twenty minute block of teacher-led whole group instruction related to fluency, vocabulary, and comprehension.
- Sixty minute block (twenty minute rotations) of small group, differentiated instruction. In small groups of one to six students, students traveled in three rotations: independent reading and teacher-led instruction and individualized computer-assisted instruction in spelling, vocabulary, fluency, phonemic awareness, phonics, and comprehension.
- Ten minute wrap up where teacher read aloud, reviewed strategies or reflected with students

In order to measure reading level, the Scholastic Reading Inventory was used and the inventory supplied each student with a Lexile Reading Level.

Statement of the Problem

As noted in the research above, reading literacy was a key part of school and life success. However, as other studies also noted, American education has struggled to find reading

programs that helped high school students become good readers. Once students left early elementary grades, schools struggled to meet the needs of adolescent readers. Further complicating the problem was the lack of reading programs touted by research to improve adolescent student reading. Scholastic Read 180 was used by many secondary schools to improve reading achievement without knowing the long term impact once a student graduated from the program. The research studies, however, included secondary and elementary students during and immediately after instruction rather than long term study after the student graduated from the program. Scholastic Read 180 was used by many secondary schools to improve reading achievement including the schools in this study; however, like so many such programs, there was presently little or no research regarding the long-lasting effects of the Scholastic Read 180 Program after a student graduated from the program.

Purpose of the Study

The purpose of the study was to determine long term impact on reading achievement after a student left the Scholastic Read 180 program. Scholastic Read 180 included an intense implementation plan that required a school to intentionally schedule the intervention impacting not only the daily schedule but also the finances of the school corporation. After studying three implementation models in three school corporations, the average annual expenses for Scholastic Read 180 were \$803 per student (Levin, Catlin, & Elson, 2010, p. 21).

Scholastic Read 180 was researched and designed from 1985-1996 by Dr. Ted Hasselbring at Vanderbilt University. Field testing began in 1997. Validation and further implementation continued in 2003. According to the Scholastic website, 2006-2013 led to continued and sustained improvements to the program based on best-practice. Scholastic Read 180's stated goal was to improve students' decoding, fluency and comprehensions skills (Levin, Catlin, & Elson, 2010).

According to the Scholastic Read 180 website, the program was used by over one million students in 40,000 classrooms each day (read180.scholastic.com). It was designed for students who were reading two or more years below grade level. Read

180, unlike many specific reading programs, allowed for three stages of the program specifically designed to meet the developmental needs of each unique age group including high school students.

If the program was fully implemented with fidelity, it included a minimum of 90 minutes per day for at least one full school year. There were other implementation options that included 110 minute class periods. Class size needed to be 15-21 students. A typical structure for the 90 minute class would be:

- Whole Group Instruction (20 minutes)- Explicit and scaffolded modeling of strategies in instructional level text
- Small Group Instruction (60 minutes) - This segment of time included differentiated instruction with three groups that rotated each twenty minutes. The three groups that each student visited included:
 - A small group of 1-6 students met with the teacher. These flexible groups were based on Lexile levels and progress monitoring data generated by Read 180 reports.
 - Independent silent reading at student's Lexile reading level
 - Individualized computer-assisted instruction in spelling, vocabulary, fluency, comprehension, phonics and phonemic awareness
 - Wrap-Up Activities (10 minutes) - This included reflection, discussion, and teacher read-aloud opportunities.

The study entailed the examination of Scholastic Read 180 scores for secondary students from sixth grade through twelfth grade years. It included data from 2009-2010, 2010-2011, 2011-12, 2012-2013, and 2013-2014 school years. Data were collected by each school corporation for its own purposes. In speaking with administrators of each school corporation, the data was actually not used for the purpose of determining effectiveness of the Scholastic Read 180 program but rather just collected as a normal part of the Scholastic Read 180 course. Individual teachers, students, and parents looked at individual student data to monitor individual growth. In researching school

corporations for this study, it was noted that many school corporations deleted the data set at the end of each school year. The deletions were related to lack of usage with regards to group data, cost effectiveness related to cost of test licensing, and lack of corporate oversight.

For the purpose of the study, one school corporation's data was used with the other schools providing general terms and data for background information but not for actual testing. Due to insufficient data from two school corporations, only one school corporation was selected to test. The initial setting was three school corporations in northern Indiana. Only middle school and high schools that used the Scholastic Read 180 reading program were selected. Additionally, only schools that continued testing after the students were removed from the program were used. The school corporations were comprised of a varied demographic population and school size.

Corporation C was a mid-sized suburban school corporation that included 6,500 students who attended seven elementary schools, one junior high and one high school. According to the Indiana Department of Education website, 48 percent of the students were Hispanic and 44 percent were white. Approximately 68 percent of the students received free or reduced lunch. The high school tested all students at least one time using the SRI. Students were then tested periodically. Teachers could choose to use the SRI score to align instruction and reading materials for students.

For the purpose of this study, students who were once in the Scholastic Read 180 program and then removed due to school criteria were studied. The convenience sample was based on availability of data provided by the school corporation and also students enrolled in the Scholastic Read 180 program. Only data provided by the above-mentioned school corporation (C) were used. Students included were previously enrolled (or not enrolled) in the program based on a criteria established by the school corporation. The three school corporations that provided data used Scholastic Read 180 for middle school and high school students who earned low scores on NWEA, ISTEP+, and/or Scholastic Reading Inventory. Students may or may not have had an Individualized Educational Plan (IEP). Each school within the school corporation determined its own criteria for

placing the students in the Scholastic Read 180 program. Students were selected to exit the program based on school corporation criteria. Removal from the program could have been related to reaching grade level reading scores, scheduling issues, or student attitude related to the course.

Instrumentation

The Scholastic website provided much detailed information about the Scholastic Reading Inventory and Lexile Levels. All instrumentation details were outlined on the Scholastic research website. Scholastic Reading Inventory (SRI) was a research-based, computer-adaptive reading assessment program for students in Grades K–12 that measured reading comprehension on the Lexile Framework for Reading. Although the SRI was used by many school corporations to test students' reading levels, it was also the test created by and associated with Scholastic Read 180. The SRI was a well-researched, validated, reliable assessment as described in the Scholastic Reading Inventory Technical Guide. SRI used authentic passages of children's literature and non-fiction texts for reading selections.

Data Collection

Upon enrollment in the Scholastic Read 180 program, students were tested using the Scholastic Reading Inventory. Lexile scores were assigned as a result of the student's performance assessment. Assessment was repeated based on the school's chosen timing. There did not appear to be consistency in timing. Students were tested on a computer in the Read 180 classroom. After the student was removed from the program due to either maintaining grade-level Lexile scores or being moved due to finishing the assigned term, testing was periodically continued to determine ongoing reading levels.

Once students completed testing, reports were generated directly from the Scholastic Reading Inventory software program. The report was then exported to an Excel spreadsheet for analysis.

Data Analysis

There were 732 students that included both a Scholastic Reading Inventory average Lexile change per year while enrolled

in Scholastic Read 180 as well as an after removed from Scholastic Read 180 average Lexile change per year. Treating those students alone as sample, a left-tailed matched pairs t-test was performed on all the data against the null hypothesis that there was no change in Lexile growth rate while enrolled in Scholastic Read 180 versus Lexile growth rates after being removed from the Scholastic Read 180 program.

Additional testing included sorted yearly data. The data was sorted into the number of years each student was enrolled in Scholastic Read 180 and left-tailed matched pairs t-tests were re-run to determine if the results varied based on length of time a student was enrolled in the Scholastic Read 180 program.

Aggregate Findings

There were 732 cases where data was available on the average per year change in Lexile scores in Scholastic Read 180 as well as on the average per year change in Lexile scores after Scholastic Read 180. The differences formed an approximately bell-shaped distribution with a slight left skew, a mean of -154.5 (a 155 point drop in Lexile rate of change) and a standard deviation of 244.9. The matched pairs left-tailed t-test indicated that the null hypothesis that Lexile rates of change do not decrease was rejected, meaning that yes, there was a statistically significant drop in Lexile.

A left-tailed t-test for paired means was conducted on the difference in Lexile change post enrollment in Scholastic Read 180 compared with during enrollment in Scholastic Read 180 using Fathom, Version 2.1 2007 (Excel 2010). A t coefficient of -17.07 ($df= 731$) was significant at the level $p = 0.05$, the p -value of the test being <0.0001 . Because the calculated p value was less than 0.05, there was a significant difference in Lexile change post enrollment in Scholastic Read 180 compared with during enrollment in Scholastic Read 180. Therefore, the null hypothesis, which stated that reading scores continued to increase at the same growth rate after being removed from the Scholastic Read 180 program as when the student was enrolled in the Scholastic Read 180 program was rejected.

In order to see if being enrolled in Scholastic Read 180 for a longer period of time changed the result, the data were disaggregated by number of years enrolled in Scholastic Read

180. The differences formed an approximately bell-shaped distribution with a slight left skew, a mean of -155.9 and a standard deviation of 259.05. The matched pairs left-tailed t-test indicated that the null hypothesis, which stated that reading scores continued to increase at the same growth rate after being removed from the Scholastic Read 180 program as when the student was enrolled in the Scholastic Read 180 program was rejected.

A left-tailed t-test for paired means was conducted on the difference in Lexile change post enrollment in Scholastic Read 180 compared with during enrollment in Scholastic Read 180 using Fathom, Version 2.1 2007 (Excel 2010). A t coefficient of -14.76 ($df=601$) was significant at the level $p=0.05$, the p -value of the test being <0.0001 . Because the calculated p value was less than 0.05, there was a significant difference in Lexile change post enrollment in Scholastic Read 180 compared with during enrollment in Scholastic Read 180. Therefore, the null hypothesis, which stated that reading scores continued to increase at the same growth rate after being removed from the Scholastic Read 180 program as when the student was enrolled in the Scholastic Read 180 program was rejected.

Students Enrolled in Scholastic Read 180 for Two Years

There were 110 cases where data was available, for students who were enrolled in Scholastic Read 180 for two years, on the average per year change in Lexile scores in Scholastic Read 180 as well as on the average per year change in Lexile scores after Scholastic Read 180.

The differences formed an approximately bell-shaped distribution with a slight left skew, a mean of -158.08 and a standard deviation of 170.45. The matched pairs left-tailed t-test indicated that the null hypothesis, which stated that reading scores continued to increase at the same growth rate after being removed from the Scholastic Read 180 program as when the student was enrolled in the Scholastic Read 180 program was rejected. With 95% confidence, that change was between 190 and 125 points.

A left-tailed t-test for paired means was conducted on the difference in Lexile change post enrollment in Scholastic Read 180 compared with during enrollment in Scholastic Read 180

using Fathom, Version 2.1 2007 (Excel 2010). A t coefficient of -9.2 ($df= 109$) was significant at the level $p = 0.05$, the p -value of the test being <0.0001 . Because the calculated p value was less than 0.05, there was a significant difference in Lexile change post enrollment in Scholastic Read 180 compared with during enrollment in Scholastic Read 180. Therefore, the null hypothesis, which stated that reading scores continued to increase at the same growth rate after being removed from the Scholastic Read 180 program as when the student was enrolled in the Scholastic Read 180 program was rejected.

Students Enrolled in Scholastic Read 180 for Three Years

There were 20 cases where data was available, for students who were enrolled in Scholastic Read 180 for three years, on the average per year change in Lexile scores in Scholastic Read 180 as well as on the average per year change in Lexile scores after Scholastic Read 180. The differences formed an approximately bell-shaped distribution with a slight left skew, a mean of -95.89 and a standard deviation of 122.45. The matched pairs left-tailed t -test indicated that the null hypothesis, which stated that reading scores continued to increase at the same growth rate after being removed from the Scholastic Read 180 program as when the student was enrolled in the Scholastic Read 180 program was rejected. With 95% confidence, that change was between 153 and 38 points.

A left-tailed t -test for paired means was conducted on the difference in Lexile change post enrollment in Scholastic Read 180 compared with during enrollment in Scholastic Read 180 using Fathom, Version 2.1 2007 (Excel 2010). A t coefficient of -3.5 ($df= 19$) was significant at the level $p = 0.05$, the p -value of the test being <0.0012 . Because the calculated p value was less than 0.05, there was a significant difference in Lexile change post enrollment in Scholastic Read 180 compared with during enrollment in Scholastic Read 180. Therefore, the null hypothesis, which stated that reading scores continued to increase at the same growth rate after being removed from the Scholastic Read 180 program as when the student was enrolled in the Scholastic Read 180 program was rejected.

The alternate hypothesis that once someone left the Scholastic Read 180 program the average Lexile reading level

growth rate would significantly slow or stagnate was found to be true.

Conclusion

The implications of this study were financially significant. First of all, it was shown that length of time (beyond one year) in the program did not make a difference in a student's ongoing rate of growth in Lexile reading level; therefore, a school corporation could remove a student at the end of one year enrollment and expect the same long-term growth rate as a student placed in the program for a longer period of time. This could save a school corporation money on teacher costs, technology, classroom use, and more.

Out of curiosity, using the same sample, it was tested to see if length of time in the program impacted a student's mean growth. It was noted that students enrolled for one year actually had higher mean growth than students enrolled for two or three years. Although this was statistically significant, it would make sense considering students enrolled for one year likely showed great improvement in the beginning due to acquisition of new skills and less improvement as the student gained some reading skills. It would be interesting to note what additional support needed to be provided to students after one year of Scholastic Read 180 rather than placing the student back into a Scholastic Read 180 classroom. Again, this would save school corporations costs associated with the Scholastic Read 180 program. When a student left the program, the assumption was that the learned skills had not become intrinsic and therefore not employed in new reading situations. Although testing did not occur to explain why student growth rate did not continue, the prediction was still confirmed that reading growth rate would significantly slow after the student was removed from the program.

One data set from a northern Indiana school was considered due to the nature of the implementation. Scholastic Read 180 was used by students in the Freshman Academy. This was determined because students in the Freshman Academy were pre-selected by the school corporation. Inclusion in the Academy was based on reading level being below grade level, below passing ISTEP+ scores, and (on occasion) NWEA scores. The Academy included a small group of teachers who worked closely

together monitoring student achievement, behavior, and emotional needs. Scholastic Read 180 was used during one period each day in the Academy. One teacher taught all Read 180 courses. At the end of the school year, students were removed from the Scholastic Read 180 program for the remainder of the students' school career.

Some students were able to opt out of the Freshman Academy Read 180 program prior to the end of the ninth grade year if the students met predetermined criteria. Students were enrolled in August and remained until June unless students were able to maintain a 3.0 grade point average and grade-level Lexile reading scores from August until February. If that achievement was maintained, students could opt out of Scholastic Read 180 for the remainder of the ninth grade school year. In a conversation with one Freshman Academy student who was able to opt out of Scholastic Read 180 from February to June, he stated, "I read 11 novels from August through February." When asked how many he read from February through June, he responded, "None."

This student's response could be insight to one aspect of the secondary reading issue. Lack of structured student-level reading time with instruction was absent in most secondary schools. If students were not forced to have reading time, students would likely fill time with other activities. It would be worthy for schools to explore ways to implement reading programs to support students' reading needs.

One question to be considered was the need for this specific program of Scholastic Read 180 versus a similarly structured developmental reading program that included 60-90 minutes each day. Were the reading gains attributed to the Scholastic Read 180 software or was it attributed to the factors for implementation: small class size, a committed time of 90 to 110 minutes each day for one full year to practice and be instructed on reading, and grade-level silent reading each day? It would be interesting to consider running a developmental reading lab with similar time structure, class size, and expectations without purchasing the additional technology and software and books.

Since Lexile reading level growth rate decreased once a student was removed from Scholastic Read 180, it called into question the long term benefits of the Scholastic Read 180

program versus any other intentional reading program. For a school corporation with strong leadership and faculty interest in reading, it would be thought-provoking to attempt school wide leveled readings in all courses, sustained silent reading programs, or reading specialists to assist classroom teachers in meeting needs of students with lower reading skills rather than implementing the costly Scholastic Read 180 program.

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The editor of *Journal for the Liberal Arts and Sciences* welcomes manuscripts related to a broad spectrum of academic disciplines and interests. Submissions should range from between 2000 and 5000 words in length, written in Times New Roman font (12 point) and must be accompanied by an abstract of up to 100 words. Manuscripts submitted for a special issue should include a reference to the theme of the issue. Authors can choose to submit their manuscripts as an email attachment to jl原因@oak.edu or to the mailing address below. Email submissions are to include a message indicating that the manuscript is not under consideration with any other publisher but *JLAS*. Submissions by mail are to include a cover letter indicating that the manuscript is not under consideration with any other publisher as well as an electronic copy of the manuscript on either CD-ROM or diskette. All manuscripts must be submitted in MS Word format.

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Originals of tables and figures, such as graphs and charts should be supplied. Graphics should be prepared and captioned as exactly as they are intended to appear in the journal. All explanatory notes should be avoided whenever possible and the intonation incorporated in the text. Essential notes should be gathered in a section following the text and listed under the heading "End Notes." End notes should be identified with consecutive numbers assigned in keeping with the superscript numeral used at the point requiring the note.

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THE OAKLAND CITY UNIVERSITY STORY

In June of 1885, the Educational Board of General Baptists organized and then gained a charter from the state of Indiana to operate a college in Oakland City, Indiana. However, because of a lack of funds, the first building, a two-story brick structure housing the administration and classrooms, was not complete until 1891 — the same year Oakland City College actually opened its doors for classes. In those early days the school was called "the college on the hill."

By the mid 1920s, the school had reached a zenith for the first half of the century. There were now several college buildings gracing the grounds, including an expanded administration building, Wheatley Hall, a women's dorm, a field house, Memorial Gym (which housed a library in the basement), Cronbach Hall (a building used for agricultural and industrial arts classes) and a two-story brick building called the president's house. Beside the normal, liberal arts, and theological school, the college had added a large industrial and agricultural department to respond to the vocational needs of the rural area which it served.

Sports teams of the 1920s included basketball, baseball, football, and track. Teams regularly played Indiana State, Evansville College, University of Louisville, and Ball State. By the mid 1920s, a legion of clubs could also be found on campus. Among them were the YMCA, YWCA, Phi Alpha Literary Society, Germanae Literacy Society, Athenian Literacy and debating team, a standard debating team, the ETOSCA club, the Dramatic League, the French Club, the German Club, the Glee Club, the college orchestra, and the college band. Enrollment during these prosperous times often broached 1000 students a semester.

Sadly, this comfortable world came to a screeching halt in 1930 with the coming of the Great Depression. Grimly, the school held on with faculty and staff often forgoing paychecks in order to keep the school running. The end of World War II and the GI Bill helped to cause resurgence in enrollment, and by the mid 1960s, the "college on the hill" experienced an upswing comparable to the 1920s. Several new buildings now crowned the campus, including four dormitories, a new library, Brengle Hall, a science building, and Stinson Hall.

The winding down of the war in Vietnam wrought a substantial drop in enrollment. By the fall term of 1973, the college found itself with an overabundance of empty dorm rooms. Fortunately, the institution endured this difficult period. In the 1990s the college moved to university status. Presently, the school has an enrollment of 2000 and has seen the construction of no fewer than nine new buildings in the last few years. Today, the university stands fully accredited and offers five graduate degrees and over forty undergraduate programs.

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