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INVESTIGATING MASTER LEVEL K-6 READING TEACHERS' ATTITUDE TOWARD TEACHING CONTENT-AREA LITERACY STRATEGIES

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Abstract Students need help using literacy strategies effectively so they can become strategic readers while reading informational books. Thus, it is important to study teachers' attitudes toward teaching content area literacy strategies (CALS), as research has shown there is a strong correlation between teachers' attitudes and their teaching practices. This pre/post action research study examined the attitudes of 50 K-8 classroom teachers who were enrolled in a graduate-level content area literacy course and were working on their master's degree in reading. The findings revealed that the participants' attitudes about implementing content literacy strategies changed over the course of the semester.

Keywords: Content Area Literacy, Literacy Strategies, CALS

Introduction

The plethora of informational texts has increased in elementary school classrooms (Young, Moss, & Cornwell; 2007). This is good news, as researchers have continuously pointed out that content area literacy is not only important at the middle and high school grade levels but also at the elementary level (Williams, 2009). Further, the National Center for Education Statistics (2011) found that 50% of fourth-grade tests were based on reading informational texts. Finally, the new literacies of online reading and the increased use of Internet technologies found in every classroom demands advanced reading, writing, and technical proficiency as well as the ability to understand and synthesize information obtained from a variety of sources (Castek, Leu, Coiro, Gort, Henry & Lima, 2007). Thus, purposefully planning to incorporate content area literacy strategies (CALS) into lessons is important in every classroom to ensure that students achieve content comprehension.

Literature Review

Theoretical Framework. This action research study was grounded in several theories: Adult Learning Theory and Cognitive Learning Theory. First, the adult learning theory states that adult learners are reflective problem solvers, and motivated by internal factors to achieve their learning goal (Knowles, 1984). This theory implies that all the participants in this study, who were classroom teachers, were taking course work to find ways to become more effective in helping their students learn while reading content texts. Second, the cognitive learning theory (Piaget, 1936) explains why these teachers purposefully enrolled in a reading content course so they could learn more about the plethora of content area strategies and their importance in the learning process in order to purposefully plan and implement these strategies into their everyday lessons in order to promote better understanding of the content being read by their students.

Moving from Narrative Text to Expository Text. As students move through their school years, their reading changes from narrative text, which tells stories to expository text which relays information and ideas. However, expository text can be challenging, as these informational text are written above grade-level reading, can use more than one pattern at a time, are disorganized, have unfamiliar vocabulary words and are not reader friendly. All of these factors have led to what is commonly known as the fourth-grade slump (Chall, 1983). Additionally, fourth-grade is a critical transition grade level, as students move from learning-to-read by sounding out familiar words to reading-to-learn where many words are unknown (Chall, Jacobs, & Baldwin, 1990; Willingham, 2009).

Therefore, students' need to learn signal words that will help them determine the text structures they are dealing with, as this will help determine the correct strategy to use while reading. Additionally, if students are to do this well, they need direct instruction in the process of looking for signal words and knowing the strategies that work with each structure (Ryder, Burton, Silbert, 2006; Vacca, Vacca, & Mzra, 2013). Direct instruction and practice in reading and analyzing the five most common text structures is important, as Common Core Standards state students should be reading and working with expository or informational text 80% of the time.

Content Area Literacy Strategies. Research has shown that when students receive content area literacy strategies (CALs) instruction, students become more likely to improve their comprehension skills and teachers feel their instruction is more successful (Hawkin, Hale, Sheeley, & Ling, 2011). Thus, students' content comprehension can be improved when they are shown how to use signal words to pick and use the correct strategy for the text structure they are reading. Furthermore, it has been found that reading strategy instruction offers significant reading level gains even for those students who already have high reading levels (Fountas & Pinnell, 2012).

Despite such benefits, research done with K-6 preservice teachers while they were completing their student teaching showed they struggled with incorporating literacy strategies into their content instruction (Hong-Nam & Swanson, 2011; Hong-Nam & Szabo, 2012; Raine, Szabo, Linek, Jones, Sampson, 2007; Szabo, Sinclair & Boggs, 2008). This could be due to the fact that the current education students have only experienced “teaching to the test” learning approach and have not really used content area learning strategies themselves. However, few studies have investigated K-6 inservice teachers’ attitudes toward teaching literacy strategies as part of their content area practices.

Purpose of Study

Even though positive gains have been observed for students whose teachers utilize content area reading strategies (CALS) instruction, it has been found that only 14% of elementary and secondary teachers employ CALS in their classroom and “Unless avenues of teacher training and professional development convince teachers of the value of reading comprehension instruction, content coverage may trump the explicit strategy instruction which promotes students’ understandings of text” (Ness, 2016, pg. 78). Thus, this action research study examined a subset of the K-8 inservice teacher population. These K-8 inservice teachers were working on their master’s degree in reading and the researchers wanted to determine their attitudes toward using content areas literacy strategies (CALS) in their elementary classrooms. In addition, two questions guided this study:

1. What attitudes do K-8 inservice teachers, who are working on their master’s degree in reading, have about teaching reading strategies for expository text?
2. How do K-8 inservice teachers’ attitude change about using content reading strategies after completing a semester-long content-area master level reading course?

Methodology

Design. This action research used a pre/post design to find out what attitudes these K-8 teachers had about CALS before and after completing a content area literacy strategy (CALS) course. Action research is used by educators to learn more about their student’s background and understanding in order to improve their instructional practice, enhance student learning and become more reflective about their teaching practices (Efron & Ravid, 2013).

Participants. A total of 50 female participants, who were working on their master’s degree in reading, were enrolled in a content literacy course. Participants’ ages ranged from 23 to 62 years with an average age of 39. The majority of the participants were Caucasian (78%) followed by Native American (18%), Hispanic (2%), and African American (2%). All the participants taught at the primary level (k-6). The participants’ teaching experiences included: 19 participants (38%) had taught in the classroom for less than 3 years; 6 participants (12%) had taught for 4 to 6 years; 11 participants

(22%) had taught for 7 to 10 years; and 14 participants (28%) had taught for more than 10 years.

Instrument. The questionnaire used was comprised of two parts. The first part contained questions to elicit participants' background information, such as age, gender, ethnicity, number of years as a teacher, and grade currently taught. The second part included the *Scale to Measure Attitudes toward Teaching Reading in Content Classrooms* (Vaughan, 1997) asking teachers' opinions about teaching reading strategies in content area classrooms. The researchers created an online survey for students to complete. This allowed the students anonymity. The participants were asked to read the 15 statements and respond to each using a Likert-scale of 1 (Strongly Disagree) to 7 (Strongly Agree).

Context. The purpose of this course is to help teachers understand the relationship between literacy instruction and content area study. Particular emphasis was given to the reading and study of expository materials at all levels of the curriculum. The major areas of study include levels of thinking and questioning, textbooks, assessments, factors in learning, reader strategies, and teacher strategies. The textbook used for this course is *Content Area Reading: Literacy and Learning across the Curriculum* (Vacca, Vacca, & Mraz, 2013).

Additionally, the course was designed to help teachers reflect upon, understand, and learn about more about CALS. The course assignments included: 1) classroom discussion of each textbook chapter, 2) creating a strategy notebook that contained CALS that can be used by the students while reading the text and each teacher/participant will demonstrate how to use one strategy, 3) completing 2 professional journal article critiques by reading, writing a reflection on their learning and reporting their learning to class peers, and 4) developing an integrated literacy project which had students examine 5 lesson plans. The participants were asked to highlight any CALS used as well as other resources used such as children's literature and/or websites to enhance the lessons. They were then asked to purposefully add these items to create a more effective group of lessons.

Data Collection and Analysis. The collected data were analyzed via several statistical techniques. Descriptive statistics (means, standard deviations, and frequencies) were computed for summarizing the reported demographic information and for describing inservice teachers' attitudes toward teaching reading and implementing reading strategies in content areas. Paired *t*-tests were calculated for testing the statistical significance of any changes in the inservice teachers' attitudes between the pre- and post-surveys.

Results

To answer research question #1, “What attitudes do K-6 inservice teachers, who are working on their master’s degree in reading, have about teaching reading strategies for expository text,” the pretest results on the *Scale to Measure Attitudes toward Teaching Reading in Content Classrooms* (Vaughan, 1997) was used. The inservice teachers’ overall mean scores revealed an already fairly high positive attitude toward implementing content literacy strategies (Pre: $M = 4.47$). Thus, it appears that these teachers were already familiar with the importance of using CALS in their lessons. This is not surprising as these students were working on a master’s degree in reading.

To answer research question #2, “How do K-6 inservice teachers’ attitude change about using content reading strategies after completing a semester-long content-area master level reading course,” the postsurvey results were compared to the presurvey results above (Post: $M = 4.55$; M Difference = .05). As the mean changed a t -test was run but the change was not statistically significant ($t = -1.00$, $p = 0.32$). However, the change did put their fairly high mean scores even higher.

But, to understand how these teachers’ thinking changed throughout the course, a closer exploration of the questions were conducted (Table 1). Teachers mean scores for each item increased on 10 items and decreased on 5 items. Seven items had very high means, as they ranged from 5.5-7.0. This showed that these teachers believed 1) content teachers needed to help improve their students’ reading ability (Item 1) by

- helping them improve their technical vocabulary knowledge (Item #2); and
- helping students set a purpose while reading informational text (Item #12);
- helping their students think on both a literal and interpretive level (item 10)

Additionally it showed that they believed K-6 teachers need to know how to teach information strategies (item 6) as it is important that all content teachers should be knowledgeable in both content and reading strategies used while reading content (item 13 & 15).

Table 1: Differences in Participants’ Attitudes between Presurvey and Postsurvey by Item

	Survey	M	SD	M Diff.	T	p
1. A content area teacher is obliged to help students improve their reading ability.	Pre	6.22	1.23	0.18	-	0.31
	Post	6.40	0.86		1.03	

2. Technical vocabulary should be introduced to students in content classes before they meet those terms in a reading passage.	Pre	5.98	1.94	0.30	-	0.21
	Post	6.28	0.82		1.28	
3. The primary responsibility of a content teacher should be to impart subject matter knowledge.	Pre	4.76	2.14	0.06	-	0.83
	Post	4.82	1.95		0.22	
4. Few students can learn all they need to know about how to read in six years of schooling.	Pre	4.56	3.80	0.36	-	0.31
	Post	4.92	3.10		1.02	
5. The sole responsibility for teaching students how to study should lie with reading teachers.	Pre	1.96	1.20	-0.16	0.58	0.56
	Post	1.80	1.47			
6. Knowing how to teach reading in content areas should be required for K-6 teaching certification.	Pre	6.42	1.27	0.06	-	0.73
	Post	6.48	0.66		0.34	
7. Only English or Reading teachers should be responsible for teaching reading in K-8 classrooms.	Pre	1.80	2.20	-0.10	0.39	0.69
	Post	1.70	1.19			
8. A teacher who wants to improve students' interest in reading should show them that he or she likes to read.	Pre	5.96	1.51	0.32	-	0.11
	Post	6.28	0.86		1.63	
9. Content teachers should teach	Pre	1.64	0.93	-0.14	-	0.45

content and leave reading instruction to reading teachers.	Post	1.50	0.83			0.77
10. A content area teacher should be responsible for helping students think on an interpretive level as well as a literal level when they read.	Pre	6.22	0.83	0.12	-	0.50
	Post	6.34	0.60			0.67
11. Content area teachers should feel a greater responsibility to the content they teach than to any reading instruction they may be able to provide.	Pre	3.40	2.77	-0.38	1.28	0.21
	Post	3.02	2.10			
12. Content area teachers should help students learn to set purposes for reading.	Pre	6.44	0.62	0.12	-	0.41
	Post	6.56	0.41			0.83
13. Every content area teacher should teach students how to read material in his or her content specialty.	Pre	6.20	1.22	0.08	-	0.70
	Post	6.28	1.06			0.39
14. Reading instruction in K-6 content area classrooms is a waste of time.	Pre	1.36	0.85	-0.02	0.10	0.92
	Post	1.34	1.27			
15. Content area teachers should be familiar with theoretical concepts of the reading process.	Pre	6.04	1.71	0.16	-	0.50
	Post	6.20	1.17			0.68

In addition to the items that had positive growth, there were five items with a negative progression from pre to post. However, this negative progression supports research, as the participating teachers disagreed that English or Reading/Literacy teachers bear all of the responsibility for teaching reading (Items 5, 7 & 9). Further, teachers believed that content area teachers in K-6 classrooms should purposely teach both content and

provide reading instruction (Item 11), although they felt the primary responsibility of a content teacher should be teaching subject matter (Item 3). Furthermore, the participants agreed that reading instruction was not a waste of time in the content area classroom (Item 15).

Discussion

This pre/post quantitative action research study showed that these inservice teachers reported that their attitudes had changed toward the importance of purposefully teaching content reading strategies even though they began with high attitudes. For instance, four items (2, 4, 8, & 11) showed the greatest change from pre to post. At the end of the semester, more participating inservice teachers recognized that vocabulary, especially technical terms, should be introduced to students before they encounter the terms when reading content text (Item 2). As research underscored word study and vocabulary should be an important part of instructional planning (Tyner, 2012), the participants of the study also conceded that early introduction of technical vocabulary is important for ensuring comprehension, as lack of vocabulary can contribute to poor comprehension of text.

These inservice teachers recognized that reading is developmental by agreeing that learning to read takes more than 6 years of education (Item 4). This finding supports reading development as a continuum based on students' experiences and not based on grade level or age (Fountas & Pinnell, 2012). The developmental stages of learning to read help teachers plan for all students' instructional needs, so all students can become self-regulated learners (Szabo, 2007).

The next item that showed the greatest increase was related to the importance of teachers demonstrating to students that they like to read (Item 8). The inservice teachers also agreed that content area teachers should have a greater role in their students' literacy development (Item 11). Teachers need to realize that "the lack of motivation students experience is grounded in an inability to successfully read and understand what is read" (Tyner, 2012, p. 87). Thus, teachers must model appropriate content literacy strategies to support the optimal learning model (Hong-Nam & Swanson, 2011). The participants also strongly agreed that teachers may be the only adults in children's environments who can model reading and learning as exciting and fun.

The participants also saw the importance of integrating literacy strategies into all content instruction in order to support students' content area learning (Item 1). This integration allows literacy to become a content area learning tool rather than a stand-alone subject. Embedding language/literacy standards into content subjects areas shows readers, from gifted to struggling, how literacy skills apply to reading any type of text (Ness, 2016).

Thus, effective content teachers carefully plan their lessons with consideration for how they can show students to use literacy strategies that make learning content more effective. It is important that teachers apply professional judgment about their students' reading abilities in relationship to the reading assignments used in their classes in order to provide varied and appropriate instruction. Teachers should not only include in their lesson plans the content they will teach but how they will teach the content along with the strategies most likely to facilitate all of their students' ability to learn the content.

Limitations

This study had some positive findings. However, the following limitations should be kept in mind as results and implications are discussed. First the study was conducted with teachers working on their master's degree in reading. So, they already viewed literacy instruction and the use of CALS as an integral part of their content area instruction. The results would be different with different types of participants. Second, although there were 50 participants, this is a small sample size. Third, all the participants were inservice teachers working on a reading master's degree at a large university in the southwest US who had various teaching experience and different years of experience. Fourth, all the data was self-reported. Fifth, action research is looking at solving problems in a particular setting and is not generalizable to other settings.

Conclusion

Teacher's attitudes toward CALS did improve, as they moved from a fairly high score of 4.47 (pre) to 4.55 (post). However, this change was not statistically significant. So, if K-8 teachers, who are working on a master's degree in reading, have a hard time learning new ways of implementing CALS into their lessons, then it could be assumed that other K-8 teachers would also experience difficulty in implementing content area literacy strategies. Williams (2009) found that CALS was difficult for teachers at all levels to implement. Since then, we have made progress but university faculty members still need to work diligently to provide professional development that impacts both teachers' knowledge and their skills of learning about the plethora of before during after content literacy strategies and purposefully implementing them into their classrooms, as K-8 still appear to need more direct instruction, time, practice, and positive feedback in order to implement CALS in the classroom while reading expository texts. Additionally, further studies need to look at how middle level and secondary level teachers are currently using CALS.

Course Changes. Action research allows teachers to look at classroom happenings more closely to see if they are working and to what extent they are working. After examining the findings, the course will change in several ways. First, another textbook will be added to the course readings: *Content Literacy: An Inquiry-based Case Approach* (Sturtevant & Linek, 2003). This textbook will allow a new assignment to be added to have students analyze various case studies to help teachers look at various lessons and problems in order to create more effective lesson plans using before, during and after content area literacy strategies (CALS) in their current lessons. Second, another assignment will have students create an annotated bibliography of 12 book titles and 3 internet resources that can be used while teaching specific content information.

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