

**THE ATTITUDE OF TEACHERS TOWARDS
TEACHING READING IN THE CONTENT AREAS**

**EDRS6900: Project Report
Submitted in Partial Fulfilment of the Requirements for the Degree of
Master of Education in Reading**

**of
The University of the West Indies**

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2011

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ABSTRACT

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According to Nourie and Lenski (1998), teachers' attitude towards literacy in the content areas is perhaps one of the principal factors that impact on reading achievement in the secondary school (p. 372). Thus, the purpose of this study is to determine the attitude of secondary school teachers towards teaching reading in the content areas and investigate whether a significant difference exists in their attitude towards content literacy instruction with respect to variables such as pedagogical training, gender, experience and subject areas. A census of the teacher population of a school in South Trinidad was conducted. A questionnaire developed by Vaughan (1977) for measuring the attitudes of teachers towards teaching reading in the content areas was used to conduct the census. The results revealed that the teachers possessed an average attitude towards teaching reading in the content areas. Additionally, it was discovered that there was no significant difference in the attitude of teachers towards teaching reading in the content areas with respect to the four variables. There is strong evidence in the literature that appropriate training can significantly improve teachers' attitude towards teaching literacy in the content areas. Thus the findings of this study suggests that the

training received by teachers was not appropriate for creating a high positive attitude towards teaching reading in the content areas.

Keywords: survey, teacher attitudes, content literacy instruction, pedagogical training, gender, subject areas, years of teaching experience

ACKNOWLEDGEMENTS

I would like to express special thanks to Dr. Jameson for her kind assistance with this thesis especially in the area of statistics.

I am extremely thankful to my supervisor, Permilla Farrell, whose keen insight and guidance greatly assisted me during this project.

I wish to express my greatest appreciation to Janice Charles for her vital encouragement and support.

Most of all, I wish to thank Almighty God for his unfailing grace without which I would have been unable to complete the project.

Colin Karr

DEDICATION

To my mother

Joyce Karr

who inspired me to seek wisdom, knowledge and understanding.

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1. Introduction

Overview of Project

An overarching research question was identified and investigated and three sub-questions were formulated to explore the overarching question in detail. Each sub-question was operationalized using a null hypothesis and an alternative hypothesis. The study employed a quantitative approach using a survey design. The literature review guided the conceptualization and conduct of the study. The study focused on teachers in a secondary school in South Trinidad. The mean, t-tests and ANOVA were used to analyze the data statistically with the aid of SPSS. The results were discussed and recommendations were made.

Background to the Problem

Hall, Hughes, and Filbert (2000) cited Montali and Lewandowski (1996) concerning weak readers habitually being unable to learn in the content areas because they cannot comprehend the text (p.174). Teachers who recognize that students are experiencing problems in reading their textbooks and are concerned about this are likely to be the teachers who will be willing to learn strategies to assist their students (Vaughn, 1977, pp. 605-606). If teachers are not interested in learning how to help struggling readers in their classrooms, then there will be little value in equipping them with the strategies to do so. Implicit in this notion is the importance of attitude. The solution for struggling readers may very well start with teachers' attitude towards the issue (Vaughn, 1977).

According to McCoss-Yergian and Krepps (2010), "... explicit instruction in literacy strategies in content area classrooms works. In fact, it is the most

effective means of improving student comprehension across the curriculum” (p. 2). The school in which this research was conducted had 558 students and 86 teachers. There were no reading specialists in the school. The Ministry of Education (MOE) provided reading teachers for classes that had many struggling readers. This programme has been discontinued at the beginning of 2011. The majority of students in this school were unsuccessful in the Caribbean Secondary Education Certificate (CSEC) from 2008 to 2010 as shown in table 1.

Table 1

Student Success at CSEC 2008-10

Students	2008	2009	2010
Total No. of Students that sat the Examination	138	91	114
% of Students Obtaining 5 Subjects and above	4	3	10
% of Students Obtaining 0 Subjects	66	71	38

Note: Calculated from the Preliminary Broadsheets 2008-10 of the Caribbean Examination Council.

Content area teachers often explained to the researcher that they had been unable to teach most of the curriculum because of the students’ poor literacy skills. Many of the students whom this researcher has taught in this school read below their grade level. It follows then that if students cannot read and understand the material in the content areas, they will be unable to cope with the curriculum. Secondary school teachers had mentioned to the researcher that students’ inability to cope with the curriculum contributed to indiscipline, which made it even more

difficult for them to teach. If poor literacy skills hindered weak readers from mastering course content, they would perform poorly in examinations.

According to Rosenberg (1992), “Illiteracy is an economic and human tragedy” (p. 389). Illiteracy contributes to reduced productivity crime and social ills (Rosenberg, 1992). The demand for literacy on adolescents in the 21st century is greater than at any other period of history. Advanced literacy is needed for employment, managing a home, functioning as citizens, living in society and treating with the exploding information age. Thus, reading instruction beyond the primary levels is necessary (Moore, Bean, Birdy, Shaw and Rycik, 1999 as cited in Vacca, Vacca & Mraz, 2011, p. 10).

Statement of the Problem

Understanding teacher attitudes to content literacy instruction is the first step to improving their instruction in the classroom, students’ consequent mastery of content and ultimate success in examinations. Understanding and addressing negative attitudes may contribute to increased teachers’ willingness to teach literacy skills in the content areas to struggling readers. Research on teachers’ attitude to reading in the content area is lacking in Trinidad and Tobago and no study has investigated teachers’ attitude towards reading in my secondary school in South Trinidad. Thus, there is need to learn about the attitudes of teachers towards content literacy instruction.

Purpose of the Study

The purpose of this study is to determine teacher attitude towards content literacy instruction in a secondary school in South Trinidad and investigate

whether a significant difference exists among content area teachers' attitude to content literacy instruction with respect to pedagogical training, subject area, gender and experience.

Significance of the Study

The study is significant for a number of reasons. Firstly, a deeper understanding of teachers' attitudes towards teaching reading in the content area will be gained. Secondly, the results from this study can help institutions that are involved in teacher training evaluate the need to develop positive attitudes in teachers towards teaching reading in the content areas. Thirdly, the knowledge gained from this investigation can guide the Ministry of Education (MOE) in treating with teachers' attitude towards literacy in the content areas. Finally, the information gained from this study can benefit reading specialists that have to work with content area teachers.

Research Questions

Overarching question.

What are the attitudes of teachers in a secondary school in South Trinidad towards teaching reading in the content areas?

Sub-questions.

- (1) Is there a significant difference in attitudes towards teaching reading in the content areas between the teachers who received pedagogical training and those who did not?
- (2) Is there a significant difference in attitudes towards teaching reading in the content areas between male and female teachers?

- (3) Are there significant differences in the attitudes of teachers towards teaching reading in different content areas?
- (4) Are there significant differences in the attitudes of teachers towards teaching reading in the content areas based on years of experience?

Null Hypotheses

H₀ (a): There is no significant difference in the mean scores of attitudes towards content literacy instruction between those teachers who received pedagogical training and those who did not.

H₁ (a): There is a significant difference in the mean scores of attitudes towards content literacy instruction between those teachers who received pedagogical training and those who did not.

H₀ (b): There is no significant difference in the mean scores of attitudes towards content literacy instruction between male and female teachers.

H₁ (b): There is a significant difference in the mean scores of attitudes towards content literacy instruction between male and female teachers.

H₀ (c): There are no significant differences in the mean scores of attitude towards content literacy instruction among teachers of Natural Science, Language Arts, Modern Studies, Technical Vocational, Visual and Performing Arts, Business Studies, and Mathematics.

H₁ (c): There are significant differences in the mean scores of attitude towards content literacy instruction among teachers of Natural Science, Language Arts, Modern Studies, Technical Vocational, Visual and Performing Arts, Business Studies, and Mathematics.

H_0 (d): There are no significant differences in the mean scores of attitudes towards content literacy instruction among teachers of less than 6 years experience, teachers of 6 to 15 years experience and those above 15 years experience.

H_1 (d): There are significant differences in the scores of attitudes towards content literacy instruction between teachers of less than 3 years experience, teachers of 3 to 7 years experience and those above 7 years experience.

Definition of Terms

Attitude

Attitude refers to “a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor” (Eagly & Chaiken, 1993, p. 1).

Struggling readers

Struggling readers are defined as students that are unable to read at their class level.

Literacy

Literacy refers to the ability to read and write at one’s grade level

Content literacy instruction

Content literacy instruction is defined as the use of literacy strategies to teach reading in the content areas.

Organization of the Paper

The paper consists of five main sections: introduction, literature review, methodology, data analysis and outcomes, and conclusion. The conclusion is followed by a list of references and appendices. The introduction presents the

research that was undertaken. The literature review situates the study in previous research. The methodology identifies the research approach and design and offers a justification for them. The Data Analysis and Outcome section treats with the methods of data collection, data analysis, results and discussion. The conclusion recapitulates the study and offers recommendations.

2. Literature Review

Introduction

This chapter situates the study in the existing literature on the issue of teachers' attitude towards literacy instruction in the content areas. It discusses the concept of content literacy and the issues surrounding the use of content literacy instruction in schools. In addition, this chapter discusses in detail the four variables: pedagogical training, gender, subject area and experience with respect to attitude in the context of research that has been done in the area. Furthermore, the literature review considers the theory of attitude such as definitional issues, attitude measurement, functions of attitudes, attitude acquisition, attitude change, and conceptual frameworks.

Review of Issue

The notion of content area literacy is an old concept (Biancarosa and Snow, 2004 as cited in McCoss-Yergian and Krepps, 2010, p. 3). Teaching literacy in the content areas involves creating clear expectations within one's subject area, utilizing literacy as an instrument for learning content material, and enhancing students' literacy skills while learning subject content (Alvermann & Phelps, 2002; Stephens & Brown, 2000; Topping & McManus, 2002; Vacca & Vacca, 1999 as cited in Lesley 2004, p. 323). For a long time, there has been a call to focus more on content literacy (Biancarosa & Snow, 2004; Draper, 2008; Kamil, 2003, Richardson 2008 as cited in Wilson, Grisham, & Smetana, 2009, p. 708) since emphasis on content literacy instruction would benefit students (Fisher & Ivey,

2005; Moore, Readence & Rickelman, 1983; O'Brien, Stewart & Moje, 1995 as cited in Wilson, Grisham, & Smetana, 2009, p. 708).

McCoss-Yergian and Krepps (2010) in their study to determine whether teacher attitudes towards literacy instruction influenced literacy strategy implementation in subject areas discovered that teacher attitudes towards literacy instruction in the content area predicts the probability that teachers will implement literacy instruction in their subject areas (p. 2). Seventy-four percent of the teachers agreed with the statement on the attitude scale that teaching reading techniques in their subject areas was a misuse of their teaching time (McCoss-Yergian & Krepps, 2010 p. 12). Subject teachers held strong negative attitudes towards their ability to teach literacy (McCoss-Yergian & Krepps, 2010, p.13). Teachers believed that primary school teachers or English Language teachers are the best persons to teach literacy (McCoss-Yergian & Krepps, 2010).

Moreover, students studying to become secondary school teachers possess an attitude of resistance towards courses that treat with content literacy and often carry this negative attitude into the teaching profession (O'Brien & Stewart, 1990 as cited in Lesley, 2004, p. 320). Furthermore, this resistance has created students that lack experience in content literacy strategies and consequently do not see the need to incorporate such strategies when they become teachers (Bean, 1997 & Draper, 2002 as cited in Lesley, 2004).

According to Spencer, Garcia-Simpson, Carter and Boon (2008), it is a fallacy to believe that literacy issues can only be solved within a Reading, English or Language Arts class (p. 1). Furthermore, "research has revealed that when

explicit, teacher-directed strategy instruction is used students make significant gains in their reading skills” (Spencer et al., 2008, p. 1). Therefore, “the attitude of classroom teachers toward content area literacy can be one of the most important factors in the reading achievement and reading practice of secondary students” (Nourie & Lenski, 1998, p. 372).

Training.

The first research question seeks to discover whether there is a significant difference in attitudes towards teaching reading in the content areas between the teachers who received pedagogical training and those who did not. Two major categories of training that the teachers received are inservice training and preservice training. Inservice training in the area of content literacy instruction will be discussed first followed by preservice training.

Cantrell, Burns, and Callaway (2009) explained that Dupuis, Askov, and Lee (1979) conducted a study on an inservice program which revealed a significant positive change in the attitude of teachers towards literacy instruction in the content areas (p. 78). The program included consultation and workshops held twice a week over a period of one academic year. They also mentioned that Wedman and Robinson’s (1988) study of another inservice programme supported the value of continuous professional development for content area teachers.

In addition, Cantrell et al. (2009) investigated teacher beliefs about content literacy instruction and learning by implementing a year-long professional development programme on content literacy. They discovered a significant pattern. Teachers reported a shift from viewing themselves as primarily content

area teachers to perceiving themselves as content and literacy teachers simultaneously. The programme was instrumental in helping them understand that their job not only entailed covering content but also involved providing reading instruction in their respective disciplines (p 86). Furthermore, the training helped teachers develop skills to teach literacy in the content areas by providing them with appropriate and helpful instructional strategies (Cantrell et al., 2009, p. 85). Their findings were consistent with the findings of Dupuis and Askov (1982) who conducted similar research.

However, even after training, teachers experienced initial barriers to implementation because they were afraid of deviating from the way they were accustomed teaching. Some respondents expressed fear of student resistance to the new strategies while others were concerned about class management and control. However, when teachers witnessed successful implementation of strategies by literacy coaches, they articulated that they developed a greater value for professional development programmes in content literacy (Cantrell et al., 2009).

Teachers also held the belief that although the use of literacy strategies involved increased time, planning and sometimes unfamiliar classroom interactions, they were worth it. Moreover, teachers appreciated the freedom to decide which strategies they should implement in their classrooms. When teachers were forced to use their preparation periods for the planning of literacy strategies and added professional development and or to employ certain literacy strategies, there was increased teacher resistance (Cantrell et al., 2009).

Cantrell et al. (2009) concluded that "... when content literacy professional development affords teachers opportunities to participate and use strategies as learners themselves, teachers' understanding about the relevance of content literacy is enhanced" (p. 89). Additionally, Cantrell et al. (2009) found that the teachers' confidence about the success of content literacy strategies increased when they witnessed the successful implementation of literacy strategies which enhanced their student learning. Such findings support research that teachers will use strategies that they have learned from professional development in the content areas (Guskey, 1986).

In addition, Dupuis, Askov and Lee (1979) stated that the goal of inservice education is to change teacher behaviour. They explained that in order to change behaviour, it is vital to first change the attitudes of teachers. Moreover, they pointed out that when the goal of inservice training is specifically geared towards assisting secondary school teachers to adopt content literacy instruction, the negative attitudes of teachers create a serious barrier (p. 66).

Furthermore, Dupuis et al (1979) found in their study using a year-long inservice programme, that teachers can change their attitude towards content literacy instruction and adopt a more positive one if they are given proper support. What is emerging clearly from the literature is that it is not only important to change negative teacher attitude towards content literacy instruction into a more positive attitude, but also to empower teachers to incorporate literacy strategies by equipping them with the knowledge, skills, practice and support through inservice professional development programmes (Guskey, 1986).

Additionally, Guskey (1986) provided a model that connected teacher attitude to student success. He argued that teacher attitude is more likely to be altered when teachers witness student improvement through the implementation of strategies and programmes that worked:

According to the model, when teachers see that a new program or innovation enhances the learning outcomes of students in their classes; when, for example, they see their students attaining higher levels of achievement, becoming more involved in instruction, or expressing greater confidence in themselves or their ability to learn, then, and perhaps only then, is significant change in their beliefs and attitudes likely to occur. (p.7)

Another significant aspect of inservice training is collaboration. Cantrell et al. (2009) emphasized the importance of collaboration. They stressed that teacher collaboration with their peers seemed to be the most important factor of the professional development programme in content literacy. They advised that similar programmes should provide occasions for teacher engagement in problem solving in a collaborative manner. They explained that programmes that stressed collaboration increased the probability of teachers being desirous of integrating literacy within instruction in the content areas (p. 90).

In addition, Garet, Porter, Desimone, Birman, and Yoon (2001) support the importance of collaboration in professional development programmes and offer additional benefits of teacher collaboration. They explained that when teachers who work together participate in professional development programmes, the chances of discussing issues, ideas and skills in such a context is greatly enhanced.

Furthermore, they pointed out that teachers that work at the same school, department or level can benefit from having a similar curriculum and assessment obligation and may successfully incorporate their new learning in other areas of instructional importance. Additionally, they believe that teachers who teach the same students can hold discussions about the needs of their students that are in different classes and grades (p. 922).

Another important dimension to teacher training revolves around the utility of preservice programmes to adequately prepare preservice teachers to integrate content literacy strategies in their future classrooms. Stieglitz (1983) mentioned that according to the Certification Requirements in Reading (1979, 1981), the certification agencies in the United States had or had been considering to make secondary reading courses mandatory for content area teachers requiring certification. However, according to Stieglitz (1983), preservice courses that include only one course on content literacy instruction may not be an effective tool for preparing teachers to incorporate reading skills into the content areas (p. 696). Therefore, he suggested that there may be need for more course work or inservice programmes which perhaps involve a multi-year programme to completely integrate literacy instruction into the classroom.

Thus, Stieglitz (1983) views inservice programmes as one of the solutions for supplementing inadequate preservice programmes. Additionally, Morey, Bezuk, and Chiero (1997) noted that teacher preparation programmes are very diverse and as such it is not a surprise that their quality is not uniform (p. 6).

Additional support for the lack of success of preservice programmes enabling preservice teachers to integrate content literacy instruction in their classrooms can be found from Alger (2009):

This study began with my concerns regarding the transfer of strategies learned in my preservice course to secondary classrooms. Clearly, some transfer occurred. The participants seemed to learn to employ various strategies, but they have missed the big point of their preservice course in content area literacy – that along with teaching their students the content, they are also teachers of reading as it pertains to their discipline. (p. 67).

Alger (2009) provided an insightful recommendation to improve preservice programmes. She recommended that there should be increased discussion and modeling among administrators and mentors about practice, informal assessment and the integration of literacy strategies into lessons in the content areas (p. 68).

Therefore, it is apparent that the quality and length of the preservice programmes significantly affect the efficacy of these programmes to alter teacher attitudes as compared to the high quality inservice programmes recommended by Dupuis et al. (1979). Their inservice model included four components: field instruction, follow-up supervision, multimedia instruction pertinent to content literacy, and the use of trained teachers as agents of change (p. 67).

The researcher expects that if those components are emphasized in preservice programmes, then the results of such programmes would be more successful. The notion that preservice programmes modelled after the inservice

programme proposed by Dupuis et al. (1979) can be as successful as inservice programmes is a good candidate for future studies.

A study done by Hoffman et al. (2005) with preservice elementary school teachers support the idea that a high quality preservice programme can produce teachers that would incorporate into their lessons literacy strategies that they have learned in their preservice programme. The researchers used preservice programmes in their study that all possessed the following eight components: a comprehensive content, field experiences, a literacy vision, adequate resources, adaptive instruction, freedom to negotiate changes, the creation of an active community, and continuous assessment (pp. 271-272).

One common component between the inservice programme of Dupuis et al. (1979) and the preservice programme of Hoffman et al. (2005) is field work. Teachers need to experience first hand that the strategies that they are expected to use can and do work in the classroom (Cantrell et al., 2009). Although the study conducted by Hoffman et al. (2005) was done with primary school preservice teachers, the researcher expects that the results can be repeated if a similar high quality preservice programme was done with secondary school teachers.

Moreover, the positive teacher attitudes, benefits and reading practices developed in a preservice professional development course are maintained with time (Stieglitz, 1983, p 696). This discovery is significant because it demonstrates that the resources invested in preservice teacher development are worthwhile. Therefore, this fact lends additional support for providing high quality preservice teacher development programmes in content literacy instruction.

The picture that is emerging from the literature is that appropriate training such as high quality preservice and continuous high quality inservice professional development programmes are beneficial for developing more positive teacher attitudes towards teaching reading in the content areas. Additionally, such programmes can empower teachers with the necessary skills and knowledge to utilize content literacy strategies in their classrooms and to teach their students how to use these strategies.

Gender.

This study also seeks to determine whether a significant difference exists in the attitudes towards content literacy instruction between male and female teachers. In the school studied in this research, the female teachers outnumbered the male teachers 2:1. This situation is not unique to this school. In fact there is a gender imbalance of more female teachers present in the education system in most countries (Drudy, 2008). Thus, if it is found that there is a significant difference in the attitude of teachers towards content literacy instruction with respect to gender, one would expect that gender would play a significant role in student achievement and reading ability since for instance, according to McCoss-Yergian and Krepps (2010), positive teacher attitude towards reading increases the probability that teachers would employ content literacy strategies which in turn would result in improvement in student comprehension.

Moreover, according to the Progress in International Reading Literacy Study [PIRLS], girls outperformed boys in two aspects of reading – literary and informational in every country that participated in the study in 2001. (Mullis,

Martin, Gonzalez, & Kennedy, 2003) Similarly, in 2006, girls obtained higher reading achievement than boys in all countries that participated in the study except Luxembourg and Spain. In those two countries the reading achievement results were not significantly different (Mullis, Martin, Kennedy, & Foy, 2007). Why are boys performing worse than girls in reading? Is the gender imbalance part of the reason?

Research done by Baron (1996) and McKenna (1997) suggested that one reason why some boys are underperforming in reading is due to the fact that they view it as feminine. This perception develops as a result of too many female models of reading in the schools and homes of children (Adams 1990; Basow, 1992; Delamont, 1990 & Pottorff et al., 1996 as cited in Sokal & Katz, 2008). Thus, there is a call to reduce the gender gap of teachers in schools (Sokal & Katz, 2008). However, much research has shown that there is no significance difference in the performance of male students that are taught by male teachers and those that are taught by female teachers (Ashley, 2003; Butler & Christensen, 2003; Carrington & Skelton, 2003; Coulter & McNay, 1993; Ehrenberg, Goldhaber, & Brewer, 1995).

The researcher is persuaded that teacher gender does not play a significant role in student achievement. Therefore, he expects that attitude towards content literacy instruction between male and female teachers would not be significant. If it were significant and female teachers possess a more positive attitude towards content literacy instruction, then the benefit of this positive attitude seems not to translate into increased gains in reading for students since the majority of teachers

in schools are female and student academic achievement and reading ability continue to be a serious issue. In contrast, if it were true that male teachers have a more positive attitude towards content literacy instruction, then it may be inferred that inadequate male teachers in the school system is contributing to the underperformance of students since students would benefit from the positive attitudes of male teachers towards reading in the content areas. Therefore, the gender imbalance in schools would assume even greater importance and the call for more male teachers to be represented in the education system would be definitely justified.

In contrast, what the researcher expects to play a significant role in the improvement of student academic performance and reading ability is teacher training that equips teachers with the necessary tools to teach content literacy instruction (Guskey, 1986) as well as training that would produce a more positive attitude in teachers towards teaching literacy in the content area (Dupuis et al., 1979). Thus, with respect to the issue of gender importance, Sokal, Katz, Chaszewski and Wojcik (2007) pointed out that:

Instead, interventions must be mindful of the limitations of considering only the embodied man and instead should be expanded to look at the interactions between boys, girls, male teachers, female teachers and home conditions in order to understand the systems in which gender and achievement interact. Attributes and practices of successful teachers must be explored within the dynamics of our gendered classrooms rather than on

the assumption of homogeneity in our male students – and our male teachers – that is based on stereotypes rather than on research. (p. 657)

Subject Area.

The researcher also sought to determine whether teachers' attitude towards content literacy instruction differed significantly according to their subject areas. Lipton and Liss (1978) (as cited in Orlando, 1983) discovered that teachers of English and Social Studies had significantly more positive attitudes towards integrating literacy strategies into their lessons than teachers of mathematics, science, art and physical education. Additionally, he made reference to O'Rourke (1980) who reported similar results that teachers of English had significantly more positive attitudes towards content literacy instruction than teachers of mathematics, science and social studies.

These findings were in agreement with research conducted by Orlando (1983) who found that the attitudes of teachers in the content area differed based on the subject that they taught. The teachers who valued content literacy strategies the most were those who had students that were expected to do the most reading (p. 5). Based on the evidence presented, the researcher expects to find significant differences in the attitudes of teachers towards teaching reading in the different content areas considered in this study.

One benefit of identifying those teachers or departments that possess high positive attitudes towards the use of literacy strategies in the content areas is that such teachers and departments can be used as ambassadors for promoting content literacy instruction among the other departments that possess a neutral or negative

attitude towards using literacy strategies in their classrooms. Additionally, teachers that possess a high positive attitude towards content literacy instruction can be provided with training in content literacy strategies so that they can also assist in training their colleagues to incorporate these strategies (Dupuis et al, 1979).

Experience.

The final research question that this study seeks to answer is whether there are significant differences in the attitudes of teachers towards teaching reading in the content areas based on years of experience. This question is important because one will naturally like to know whether teachers develop an appreciation for incorporating literacy instructions in their classrooms as they gain experience over time. Perhaps, over time, as teachers gain experience interacting with students, they may discover the necessity and value of content literacy instruction for enhancing student reading ability and academic achievement.

The researcher was unable to locate any study that examined teacher attitude toward content literacy instruction based on years of experience. However, a study done by Marsh (2007) has some bearing on the issue. He discovered that the teaching effectiveness of university teachers in the university studied was generally stable with increasing years of experience:

Whereas some teachers improved with time and others got worse, most showed very little systematic change in teaching effectiveness. Teachers who were relatively poor teachers at the start of the study mostly remained poor teachers, whereas those who were relatively good teachers at the start of the study mostly remained good teachers throughout the 13 years.

Across the spectrum of good to bad teaching, teachers did not get systematically more effective with experience, but neither did they become less effective. (p. 786)

Additionally, Ryans (1960) and Barnes (1985) (as cited in Marsh, 2007) found that teachers' teaching effectiveness increased in the initial years of teaching, followed by a leveling out and finally slowly declined. Marsh (2007) mentioned the interpretation that Barnes (1985) offered for these results. He explained that Barnes (1985) reported that after the initial years of teaching, teachers had a tendency to reject policy changes in education. The researcher views this interpretation as one of a change of teacher attitude. In other words, after the initial years of teaching, teachers developed and increasingly negative attitude towards policy changes in education and by rejecting them, their teaching became less effective over time.

Based on this discussion of the literature, the researcher can develop two scenarios. In the first scenario based on the studies of Ryans (1960) and Barnes (1985) (as cited in Marsh, 2007), the researcher infers that after the initial years of teaching, teacher's attitude towards teaching reading in the content areas will gradually become more negative. This means that the researcher expects to find significant differences in the attitudes of teachers towards teaching reading in the content areas based on years of experience.

The next scenario is based on the findings of Marsh (2007) that teacher effectiveness remains relatively stable with experience. The assumption is that their attitude towards content literacy instruction also remains stable. Thus, in this

situation, the researcher expects to find no significant difference in the attitudes of teachers towards teaching reading in the content areas based on years of experience.

The researcher has judged that the study done by Marsh (2007) is more reliable than the studies done by Ryans (1960) and Barnes (1985) (as cited in Marsh, 2007) because his study was longitudinal while the studies done by the other researchers relied heavily on cross-sectional studies as recorded in the following quotation:

Do teachers become more or less effective with added experience? The present investigation combined new, evolving methodology to address this critical question that is relevant to all levels of education. Sadly, there exists a body of research showing that teaching effectiveness tends to decline – not improve – with added experience the vast majority of studies evaluating this phenomenon are based on cross-sectional data rather than true longitudinal data. Cross-sectional studies cannot evaluate covariance stability at all and are not ideally suited for the evaluation of mean stability because of potential selection effects. (Marsh, 2007, p. 784)

Thus, the researcher believes that longitudinal studies are more appropriate for exploring phenomena involving changes over time. Therefore, in the case of teachers' teaching effectiveness over time, longitudinal studies are more suitable than cross-sectional studies (Marsh, 2007). As a result, the researcher is persuaded that scenario two is a more likely possibility.

The study done by Marsh (2007) used data from students' evaluations of their lecturers' teaching effectiveness. He referred to Cohen (1980) stating that lecturers who received midterm feedback were rated higher and that studies which included feedback and consultation gave even greater differences. Thus, Marsh (2007) suggested that teachers are unaware of how to enhance the effectiveness of their teaching without feedback from students' evaluations of their teaching effectiveness and consultation that is external.

The importance of intervention as a means of altering teacher attitude and teaching effectiveness seem to be a recurring theme in the literature. Repeatedly some aspect of professional development is highlighted. In the case of Marsh (2007), feedback and consultation is emphasized as crucial for improving the teaching effectiveness of lecturers. Whether teachers' attitude towards content literacy instruction becomes more negative or is stable with experience, both situations are undesirable. What is advantageous is that as time progresses, teachers develop an increasingly positive attitude towards teaching reading in the content areas.

Attitude Theory

The concept of attitude is essential to social psychology (Allport, 1935 as cited in Rokeach, 1986). Rokeach also stated that the notion of attitude is indispensable to the psychology of personality (Rokeach, 1986, p.109). Furthermore, Fishbein pointed out that the concept of attitude has become increasingly significant in almost every behavioural science (Fishbein, 1967, p. v). Numerous definitions in the literature exist for the concept of attitude.

Traditionally attitude was conceptualized as consisting of three components: a cognitive, affective and behavioral component (Triandis, 1971, pp 2-3). However, Fishbein and Ajzen (1975, p. 8) argued that it is the affective or evaluative domain that differentiates attitude from other concepts. Furthermore, they stated that there is widespread acceptance that the most indispensable aspect of the concept of attitude is affect (p. 11). They also noted that the majority of instruments developed to measure attitude "... arrive at a single number designed to index this general evaluation or feeling of favorableness or unfavorableness toward the object in question." (p. 11) They explained that attitude is inferred from behaviour. It cannot be directly observed (p. 8).

According to Dawes (1972), L.L. Thurstone was credited with revolutionizing the notion of measuring attitude when he described a procedure for attitude measurement in 1928 in the American Journal of Sociology (p. 4). Although there is no universal consensus on the definition of attitude, Dawes (1972) explained that agreement among social psychologists on the definition of attitude is not essential for them to measure attitudes. He argued that the measurement process used to measure, for example, a specific property is not affected by disagreements about whether the property being measured should or should not be included in the definition (p. 16). In contrast to this perspective, Fishbein and Ajzen (1975) posited that a clear definition is necessary because it aids in the formation of valid procedures of measurement (p. 5).

Triandis (1971) refers to major theorists such as Smith (1947), Smith, Bruner, and White (1956), Katz and Stotland (1959), and Katz (1960) about the

functions of attitudes in personality. These theorists proposed that attitudes help individuals understand a complex world, guard their self-worth, help people adjust, and permit them to communicate their essential values (pp 4-5).

According to Triandis (1971), attitude is learned. Additionally, he referred to Allport (1954b) that most of the attitudes that an individual develops are obtained from communicating with family and friends (p. 101). Triandis explained further that people also acquire attitudes from direct experience with the attitude object. However, only a small fraction of an individual's attitude is developed in this way (p. 102).

Triandis (1971) argued that attitudes could be altered in a number of ways. He explained that the cognitive component can be changed by the acquisition of new information, the affective component can be altered by unpleasant experiences involving the attitude object and the behavioural component can be altered by changes in norms or laws that force a behavioural change (p. 143).

There is much disagreement among scholars on the conceptual framework to explain the relationship between attitude and behaviour. Generally, scholars believe that attitude together with other factors can predict behaviour with great accuracy. For instance, Triandis (1971) argued that behaviour could be predicted based on four components: attitude, norms, habits, and expectation. When the four components are consistent, there is a strong connection between attitude and behaviour. However, when the four factors are inconsistent, the relationship between attitude and behaviour is weak (p. 16).

However, Rokeach (1972) posited that behaviour is a function of two attitudes: attitude towards an object and attitude towards a situation. He believes that one cannot act contrary to one's attitude. For example, if the results of an investigation seem to support that an individual acted contrary to a particular attitude, it means that the individual behaved in a manner consistent with a second or third attitude that superseded in significance the attitude that was measured. Furthermore, he explained that if a negative connection was found between attitude and behaviour in an investigation, the possibility exists that an attitude, which was not measured in the study, is consistent with the behaviour (p. 128).

On the other hand, Fishbein and Ajzen (1975) argued that behaviour could be predicted by behavioural intentions, which are a function of two factors: attitude and subjective norms. In this construct, attitude is viewed as one of the major determinants of behavioural intentions (p. 16).

For the purposes of this study, the researcher uses a conceptual framework that treats attitude as a major determinant that influences behaviour. However, as the discussion reveals, other factors may also influence behaviour. As such, the focus on attitude alone can be treated as a limitation to the study.

Conclusion

According to McCoss-Yergian and Krepps (2010), teacher attitude towards reading in the content areas influences the probability that teachers will implement literacy instruction in their subject areas. Teachers that employ strategies in their instruction see significant improvement in student reading achievement (Spencer et al., 2008). Thus, teacher attitude towards content area literacy can play a

significant role in student reading achievement and practice in secondary schools (Nourie and Lenski, 1998). Additionally, there was a detailed discussion involving the four variables under study: pedagogical training, gender, subject area and experience with respect to teacher attitude towards content literacy instruction. The literature review also discussed attitude theory. Fishbein and Ajzen (1975) explained that the most popular definition of attitude focused on the affective element and that a clear definition of attitude is necessary since it helps in creating valid procedures of measurement. The literature review also identified four functions of attitude, the various ways attitude is acquired, the manner in which the cognitive, affective and behavioural components of attitude can be changed and conceptual frameworks.

3. Methodology

Introduction

The purpose of this study is to investigate teacher attitude towards content literacy instruction in a secondary school in South Trinidad and to determine whether a significant difference exists among those teachers' attitude to content literacy instruction with respect to pedagogical training, gender, subject area and experience.

Overarching Question:

What are the attitudes of teachers in a secondary school in South Trinidad towards teaching reading in the content areas?

Sub-questions:

- (1) Is there a significant difference in attitudes towards teaching reading in the content areas between the teachers who received pedagogical training and those who did not?
- (2) Is there a significant difference in attitudes towards teaching reading in the content areas between male and female teachers?
- (3) Are there significant differences in the attitudes of teachers towards teaching reading in different content areas?
- (4) Are there significant differences in the attitudes of teachers towards teaching reading in the content areas based on years of experience?

Research Design and Type of Study

Since this study sought to explore whether there existed differences in attitudes of teachers towards teaching reading in the content areas with respect to

variables such as pedagogical training, gender, experience and subject areas, the quantitative approach was the most appropriate design for this investigation. The investigation was reductionistic in nature, reducing the ideas into variables to be tested. Knowledge is gained through observing and measuring phenomena in the world (Creswell, 2003, pp. 7, 153).

Additionally, Creswell (2003) refers to Phillips and Burbles (2000) concerning the major assumptions of quantitative design: hypotheses are used which are either supported or rejected but never proven, instruments are used to collect data and validity and reliability are important standards to avoid bias (pp. 7-8). These major assumptions guided the design of this investigation. The study employed a survey design. Surveys are advantageous because "... they can yield a lot of information at a reasonable cost in time and effort." (Vogt, 2007, p. 90).

Population

The population consisted of all the teachers in the school. There were 86 teachers on roll. Five teachers could not be contacted during the period of the interview. The surveys were therefore given to 81 teachers (94 %) of the population, which consisted of 53 females (65 %) and 28 males (35%) – a ratio of approximately 2:1 females to males.

Methods of Data Analysis

A table was created in a notebook and all the information on the survey was transferred to the table under the appropriate headings. Any survey that was improperly filled out was not included in the analysis. The number of respondents and nonrespondents was calculated. To find the general attitude of teachers

towards teaching reading in the content areas, firstly, the total score for each survey was calculated using the scoring procedure in Table 2. Secondly, the sum of all the scores was calculated and the mean computed. Finally, this mean score was checked with interpretation Table 3 to rate the attitude of the teachers toward teaching reading in the content areas.

Next, to determine whether a significant difference existed in the attitude of the teachers towards reading with respect to pedagogical training, gender, subject areas and experience, the surveys were grouped according to each variable and the teachers' attitude scores for that variable recorded in a notebook. For example, to treat with the variable gender, the surveys were divided into two groups – male and female. Then the attitude scores for each group were recorded in a notebook. This procedure was repeated for each variable. Afterwards, the scores were used with the SPSS software to calculate the mean, standard deviation and standard error of the mean for each variable as well as to perform t-tests and ANOVA. The means of each variable were used to perform either the t-test or ANOVA depending on the number of groups in each variable. Since gender (male/ female) and training (trained/ untrained) consisted of two groups, t-tests were performed. ANOVA was used for the analysis of experience, which consisted of three groups (< 6 years, 6 to 15 years and > 16 years). Additionally, ANOVA was used with subject areas, which comprised seven groups: Natural Science, Language Arts, Modern Studies, Technical Vocational, Visual and Performing Arts, Business Studies, and Mathematics.

Delimitations and Limitations of the Study

One limitation of the research was that the time to conduct it was short. In addition, 100 % participation did not occur. Ninety-four percent of the teachers received surveys. Five teachers could not be contacted and the surveys of seven other teachers could not be included because they were not filled out properly. Moreover, in the teacher population of the school, the ratio of male to female was approximately 2:1. However, with 19 nonrespondent females, the ratio of male to female analyzed was approximately 1:1, possibly resulting in a gender bias. Furthermore, the investigation was delimited to one secondary school in South Trinidad. Additionally, the research focused on the variables of pedagogical training, gender, subject area and experience and the study was confined to a survey design.

4. Data Analysis and Outcomes

Methods of Data Collection

Instrument.

This study utilized a self-administered questionnaire comprising two sections: Section A and Section B, and an accompanying covering letter. Section A consisted of seven items. Items 1 to 6 and part of item 5 were closed questions where the respondents were required to tick the appropriate box. Item 7 and part of item 5 were open questions where the respondents had to give answers that were not identified on the questionnaire. Section B was a 7-point Likert Scale questionnaire developed by Vaughan (1977) for measuring the attitudes of teachers towards teaching in the content areas. It consisted of 15 questions, instructions for the respondents and a rating scale. It was a closed questionnaire, requiring the respondents to tick their choices.

The researcher designed Section A (see Appendix B). Previous research conducted on teacher attitude towards reading in the content areas informed the development of this section. The items produced in Section A would provide the data on the four dependent variables: pedagogical training, gender, subject areas and years of experience.

The article containing Vaughn's attitude scale was purchased on 8th March, 2011 online and received the same day. Vaughn's suggestions for reproducing the scale were followed and the design can be seen under Section B in Appendix B. Section A and Section B were combined into one survey instrument. The completed instrument was face validated by an expert in the Education Department

of the University of the West Indies who did not recommend any changes to be made.

The covering letter stated the purpose of the study. It informed the teachers that the Principal of the school granted permission for the investigation to be undertaken. It also informed them that their participation was voluntary and that their responses would be treated with the utmost confidentiality (see Appendix A).

Reliability.

The instrument is reliable. Vaughn examined two features of reliability: internal consistency and stability. Internal consistency for the whole scale was determined by the Cronbach's Alpha test. It produced an internal consistency coefficient of .87. Pearson product-moment correlation was used to calculate the median stability coefficient which was found to be .77, ranging from .66 to .89. Vaughn (1977) cited Anastasia (1976) to support his conclusion that the reliability of his scale is higher than what is usually obtained in affective constructs (p. 606).

Validity.

To demonstrate the validity of the instrument, Vaughn considered three aspects of construct validity: convergent validity, sensitivity to treatment, and discriminant validity. With respect to convergent validity, he discovered that the mean scores of the responses of two groups that differed on the construct gave a difference of 16.4 ($p < .0001$). Each item on the scale significantly differentiated between the two groups ($p < .01$) (Vaughan, 1977, p. 606).

The scale's sensitivity to treatment was established by using the scale to measure the attitude of graduate students that were enrolled in a course that

exposed them to elements of teaching reading in the content areas. It detected a significant change in attitudes ($p < .01$) of the experimental groups (Vaughan, 1977, p. 606).

The median value for the correlation between the scores on Vaughn's attitude scale and an attitude scale on open education was used to determine the discriminant validity of the scale. It was found to be .25, with a range of .13 to .40. Such a low correlation indicates that the scales are measuring different things. Vaughn was able to replicate each of the validation stage. (Vaughan, 1977, pp. 606, 607).

Scoring procedures.

The answer sheet permitted seven possible responses to each item as shown below:

7 = Strongly Agree

6 = Agree

5 = Tend to Agree

4 = Neutral

3 = Tend to Disagree

2 = Disagree

1 = Strongly Disagree

Nine of the items are positive and six are negative. The negative items must be scored in reverse order from the positive items according to Table 2.

Table 2

Scoring of an Individual's Responses

Responses	Scale and Scoring Procedure							
Positive Items 1, 2, 4, 6, 8, 10, 12, 13, 15	Scale	7	6	5	4	3	2	1
	Score	7	6	5	4	3	2	1
Negative Items 3, 5, 7, 9, 11, 14	Scale	7	6	5	4	3	2	1
	Score	1	2	3	4	5	6	7

An individual's total score is calculated by finding the sum of his or her scores.

Interpretation procedures.

The scores were interpreted according to the criteria shown in table 3.

Table 3

Interpretation Table

Range	Attitude
91 or higher	High
81 – 90	Above Average
71 – 80	Average
61 – 70	Below Average
60 or lower	Low

Implementation of research design.

The completed instrument was piloted in a similar secondary school in South Trinidad. Ten teachers were chosen at random for the pilot study. The teachers were asked to give feedback about any issues that they had discovered with the instrument. The teachers completed the pilot survey and found no problems with the instrument.

Then, in a school in South Trinidad, the researcher delivered the survey instrument to each of the 81 teachers in person. They were directed to place the completed surveys in a deposit box that was located in the administrative office. The survey was conducted over a five-day period. At the end of the last day of the survey, the deposit box was collected.

Ethical Considerations

Permission to conduct the research was obtained from the Principal of the school and the Ministry of Education. Participants were informed about the purpose of the study. They were afforded confidentiality and they were told that participation in the research was voluntary. The survey was designed to afford the respondents anonymity.

Analysis of Data

Out of the 81 teachers that received the survey, there were 62 respondents and 19 nonrespondents. The percentage of respondents was 77 %. All the males returned the surveys. The 19 nonrespondents were all females. Of the 62 surveys, seven were filled out incompletely. Five teachers left out either one or two items in Section B, one teacher left out item 7 (the subject taught) in Section A and two

items in Section B, and another teacher left out item 7 in Section A. These seven incomplete surveys were not included in the study leaving 55 out of the 62 returned surveys for analysis. Thus, the 55 surveys that were properly completed represented 68 % of the population that received the surveys.

The 55 respondents comprised 26 males and 29 females, which translated into 47 % males and 53 % females, an approximate 1: 1 ratio. Thirty-four teachers were trained and 21 were untrained. Fourteen teachers had five years or less experience, 20 teachers had six to 15 years experience, and 21 teachers had 16 years or more experience. With respect to subject areas, six teachers were in Natural Science, 11 in Language Arts, six in Modern Studies, 13 in Technical Vocational, two in Visual and Performing Arts, seven in Mathematics and Computer Science and 10 in Business Studies. This information is displayed in Table 4.

Table 4

A Breakdown of the Respondents According to the Four Variables

Gender		Training		Experience		Subject Department	
Males	26	Trained Teachers	34	< 6 Years Experience	14	Natural Science	6
Females	29	Untrained Teachers	21	6 -15 Years Experience	20	Language Arts	11
				> 15 Years Experience	21	Modern Studies	6
						Technical Vocational	13
						Visual and Performing Arts	2
						Mathematics and Computer Science	7
						Business Studies	10
Total	55		55		55	55	55

The subjects were grouped into seven areas as shown in Table 5.

Table 5

Subjects Grouped According To Subject Areas

Subject area/ Department	Subjects
Natural Science	Physical Education, Agricultural Science, Chemistry, Integrated Science, Human and Social Biology
Language Arts	English Language, English Literature, Spanish, Communication Studies
Modern Studies	History, Social Studies, Geography
Technical Vocational	Technology Education, Mechanical Engineering Technology, Machine Shop, Auto Mechanic, Woodwork, Home Economics, Electrical Installation, Welding, Carpentry, Technical Drawing
Visual and Performing Arts	Music, Theatre Arts
Business Studies	Principles of Business, Principles of Accounts, Office Administration, Electronic Document Preparation Management, Management of Business, Office Administration, Economics
Mathematics	Mathematics, Computer Science

The overarching question was: “What are the attitudes of teachers in a secondary school in South Trinidad towards teaching reading in the content areas?” To provide a general answer to this question the mean was computed from

each teacher's total score on the attitude survey. Then this mean was used with Table 3, the interpretation table, to determine the teachers' general attitude.

Teachers' scores were: {79, 76, 64, 66, 78, 78, 67, 80, 80, 83, 77, 98, 60, 82, 60, 75, 73, 68, 87, 89, 76, 87, 73, 84, 82, 66, 80, 73, 81, 86, 69, 81, 68, 69, 69, 79, 77, 83, 93, 87, 77, 77, 67, 48, 77, 96, 74, 70, 85, 64, 93, 76, 65, 69, 85}. Furthermore, by responding to the sub-questions, the overarching question was explored in more depth.

Sub-question 1 was: "Is there a significant difference in attitudes towards teaching reading in the content areas between the teachers who received pedagogical training and those who did not?" To respond to this question, the following null and alternative hypotheses were formulated. The null hypothesis stated: "There is no significant difference in the mean scores of attitudes towards content literacy instruction between those teachers who received pedagogical training and those who did not." The alternative hypothesis stated: "There is a significant difference in the mean scores of attitudes towards content literacy instruction between those teachers who received pedagogical training and those who did not." Scores for trained teachers were: {68, 80, 48, 80, 82, 87, 69, 78, 78, 83, 86, 68, 69, 83, 96, 93, 77, 66, 83, 82, 73, 77, 77, 77, 74, 65, 85, 79, 67, 98, 87, 69, 60, 81}. Scores for untrained teachers were: {89, 77, 69, 64, 76, 60, 81, 76, 76, 93, 67, 64, 75, 87, 73, 66, 73, 80, 79, 70, 85}. The mean, standard deviation, standard error of the mean and the results of the t-test for training can be found in Table 7.

To answer sub-question 2: “Is there a significant difference in attitudes towards teaching reading in the content areas between male and female teachers?” the following null and alternative hypotheses were generated. The null hypothesis stated that there is no significant difference in the mean scores of attitudes towards content literacy instruction between male and female teachers. The alternative hypothesis stated that there is a significant difference in the mean scores of attitudes towards content literacy instruction between male and female teachers.

Scores for male teachers were: {68, 87, 69, 83, 68, 66, 83, 82, 73, 77, 77, 74, 65, 85, 79, 69, 76, 93, 67, 75, 73, 73, 80, 79, 70, 85}. Scores for female teachers were: {80, 48, 80, 82, 78, 78, 86, 69, 83, 96, 93, 77, 77, 67, 98, 87, 60, 81, 89, 77, 69, 64, 76, 60, 81, 76, 64, 87, 66}. The mean, standard deviation, standard error of the mean and the results of the t-test for gender can be found in Table 8.

The following null and alternative hypotheses were formulated to answer sub-question 3: “Are there significant differences in the attitudes of teachers towards teaching reading in different content areas?” The null hypothesis stated that there are no significant differences in the mean scores of attitudes towards content literacy instruction among teachers of Natural Sciences, Language Arts, Modern Studies, Technical Vocational, Visual and Performing Arts, Business Studies, and Mathematics. The alternative hypothesis stated that there are significant differences in the mean scores of attitudes towards content literacy instruction among teachers of Natural Sciences, Language Arts, Modern Studies, Technical Vocational, Visual and Performing Arts, Business Studies, and Mathematics. The attitude scores for teachers with respect to subject areas are

shown in Table 6. The mean, standard deviation and standard error for subject areas are displayed in Table 9. The results of the ANOVA for subject areas are presented in Table 10

Table 6

Attitude Scores for Teachers According to Subject Areas

Subject Area	Scores
Natural Sciences	69, 87, 82, 60, 80, 76
Language Arts	76, 93, 96, 83, 69, 68, 81, 86, 83, 78, 78
Modern Studies	64, 48, 77, 69, 89, 77
Technical Vocational	85, 65, 74, 77, 67, 77, 93, 77, 73, 82, 76, 83, 66
Visual and Performing Arts	79, 64
Business Studies	69, 66, 73, 87, 87, 68, 80, 75, 98, 67
Mathematics	85, 70, 79, 81, 80, 73, 60

In response to sub-question 4, “Are there significant differences in the attitudes of teachers towards teaching reading in the content areas based on years of experience?” the following null and alternative hypotheses were created. The null hypothesis stated that there are no significant differences in the mean scores of attitudes towards content literacy instruction among teachers of less than 6 years experience, teachers of 6 to 15 years experience and those above 15 years experience. The alternative hypothesis stated that there are significant differences in the mean scores of attitudes towards content literacy instruction among teachers of less than 6 years experience, teachers of 6 to 15 years experience and those

above 15 years experience. The scores for teachers having less than 6 years experience were: {60, 81, 76, 64, 77, 69, 64, 81, 60, 79, 73, 93, 76, 77}. The scores for teachers possessing 6 to 15 years experience were: {76, 87, 66, 87, 67, 77, 83, 86, 78, 78, 48, 80, 85, 80, 67, 69, 79, 68, 83, 69}. The scores for teachers having greater than 15 years experience were: {89, 98, 77, 93, 96, 69, 82, 80, 70, 73, 75, 85, 65, 74, 77, 73, 82, 83, 66, 87, 68}. The mean, standard deviation and standard error for experience can be found in Table 11. The results of the ANOVA for experience can be seen in Table 12.

Results and Discussion

The overarching question was: “What are the attitudes of teachers in a secondary school in South Trinidad towards teaching reading in the content areas?” This question was answered by calculating the attitude mean score, which turned out to be 76. According to Table 3, a mean score of 76 reflects an average attitude towards teaching reading in the content areas.

There are various ways to interpret the significance of this result. Firstly, with respect to the willingness of teachers in this secondary school to implement content literacy strategies in their classrooms, it is not expected that teachers with just an average attitude towards integrating reading strategies into their lessons to be enthusiastic about adopting content literacy instruction. The study done by McCos-Yergian and Krepps (2010) revealed that teachers’ attitude to literacy instruction in the classroom influences their willingness to implement such strategies in content area instruction. Therefore, if an investigation were to be conducted into the frequency of the use of content literacy strategies in this school,

the researcher expects that it would be very low. If teachers are not utilizing literacy strategies in the content areas, then students' reading ability will suffer due to the lack of such instruction (Spencer et al., 2008).

Secondly, an average attitude toward content literacy instruction can mean that it may be easier to persuade teachers in this school to develop an above average or high positive attitude towards incorporating literacy strategies in their classrooms than if their attitudes towards the issue were below average or low. Moreover, the researcher along with about 92 other teachers from the primary and secondary schools in Trinidad and Tobago have received a two-year scholarship in 2009 from the Ministry of Education to undergo training at the University of the West Indies to become reading specialists in primary and secondary schools of Trinidad and Tobago commencing in September, 2011. The point is that since teachers at this school possess an attitude toward content literacy that is neither high nor low, the reading specialists that are about to work with them may not encounter severe resistance. According to Dupuis, Askov and Lee (1979), teachers with negative attitudes are the ones to present serious problems to adopt content literacy instruction during inservice programmes. Therefore, refusing to cooperate with or undermining the efforts of the reading specialist may be expected of teachers who have a very negative attitude towards content literacy instruction.

On the other hand, one would have hoped that the attitude of the teachers were above average or high. If this were the case, then the teachers would have been expected to embrace the reading specialists thus making the job of the reading facilitators much easier. Since they possess an average attitude, it means

that the reading specialists have to work even harder at helping these teachers develop a more positive attitude towards content literacy instruction so that they may better appreciate the work of the reading specialists and give them their full cooperation and support.

The results for sub-question 1: “Is there a significant difference in attitudes towards teaching reading in the content areas between the teachers who received pedagogical training and those who did not?” are presented in Table 7.

Table 7

T-Test, Mean, Standard Deviation and Standard Error of the Mean for Training

Group	N	Mean	SD	Std. Error Mean	t	df	Sig (2- tailed) or P	α
Trained	34	77.21	10.26	1.76	.730	53	.469	.05
Untrained	21	75.24	8.74	1.91				

Since $p = .469$ is greater than $\alpha = .05$, we accept the null hypothesis and reject the alternative hypothesis. Thus, the independent-sample t-test revealed that there is no significant difference in attitudes towards teaching reading in the content areas between the teachers who received pedagogical training and those who did not.

Based on the literature, it was expected that teachers who received pedagogical training would have a more positive attitude towards teaching reading

in the content area than teachers who were untrained (Dupuis et al., 1979). However, the results from this study revealed that there was no significant difference between the two groups of teachers. The teachers that were trained would have received preservice training or inservice training or both (*National Report on the Development of Education in Trinidad and Tobago*, 2004). Dupuis et al. (1979) found that in their study of a year-long inservice programme, teachers' attitude became more positive towards content literacy instruction if they were given adequate support. The key to the adoption of a more positive attitude to literacy instruction in the content area is adequate support. The researcher is convinced that the inservice professional development programmes that the teachers were exposed to did not provide the necessary support that is vital to bring about above average attitude change towards content literacy instruction.

For instance, as a teacher, the researcher participated in two inservice literacy professional development workshops. They both lasted four days. Although the information was relevant, the programme was much too short. Moreover, the nature of the programme did not provide opportunities for field-based experiences or collaboration with colleagues. There was no occasion to witness the strategies being demonstrated in a real classroom setting. Dole and Donaldson (2006) referred to Hawley and Valli (1999) concerning single, non continuous workshops. They argued that those kinds of workshops are considered unsuccessful. Moreover she explained that Fullan (1990) pointed out that an evaluation of whether teachers utilized the information from the workshop to

enhance instruction and an evaluation of whether their students improved as a result of the knowledge they gained do not occur.

In this study some teachers would have been exposed to preservice training. However the nature of the training would have been quite different depending on the institution attended. For example, some teachers attended training colleges that prepared them to teach in the primary school system. Some of these teachers then transferred into the secondary schools and a few of them may have pursued additional training in pedagogical methods designed for teaching in secondary schools. Then, there are secondary school teachers who after receiving their first degree returned to university to pursue an additional one year pedagogical course for teaching at the secondary level. The point to note from this study is that these varied forms of training did not effect a higher positive attitude in these teachers as compared with those teachers that did not receive any pedagogical training. The fact that there was no significant difference between trained and untrained teachers may be a reflection on the inadequacy of these preservice programmes to treat with the issue of teacher attitude towards content literacy instruction.

The plan to train 92 reading specialists and place them in primary and secondary schools throughout Trinidad and Tobago is a wonderful idea. Unlike the one-shot professional development initiative, reading specialists can provide the continuous support teachers need in order for them to develop a more positive attitude towards teaching reading in the content areas. For example, reading specialists can function as reading coaches in schools with many struggling readers

(Dole, 2004). In this way they, can model powerful content literacy strategies to teachers. When teachers see the success of the strategies, they would be encouraged to adopt them in their instruction (Guskey, 1986).

The results for sub-question 2: “Is there a significant difference in attitudes towards teaching reading in the content areas between male and female teachers?” are displayed in Table 8.

Table 8

T-Test, Mean, Standard Deviation and Standard Error of the Mean for Gender

Gender	N	Mean	SD	Std. Error Mean	t	df	Sig. (2-tailed) or P	α
Male	26	76.00	7.32	1.43	-.327	53	.745	.05
Female	29	76.86	11.50	2.14				

Since $p = .745$ is greater than $\alpha = .05$, we accept the null hypothesis and reject the alternative hypothesis. Thus, the independent-sample t-test revealed that there is no significant difference in attitudes towards teaching reading in the content areas between male and female teachers. Since many studies have revealed that the gender of teachers is not important in enhancing student performance (Ashley, 2003; Butler & Christensen, 2003; Carrington & Skelton, 2003; Coulter & McNay, 1993; Ehrenberg, Goldhaber, & Brewer, 1995), the

researcher expected that there would be no significant difference in attitudes toward reading in the content areas between male and female teachers. This proved to be the case in this school.

The findings with respect to gender is very important. It means that students will receive no special advantage in content literacy instruction from teachers based on the notion that one gender has a more positive attitude towards utilizing literacy instruction in the classroom. For example, since the results do not support that male teachers have a more positive attitude than female teachers with respect to adopting content literacy instruction in their classrooms, the results offer no support for addressing the gender imbalance in schools by significantly increasing the population of male teachers with the expectation that students, especially, male students would benefit from the higher positive attitudes of male teachers towards content literacy instruction.

In other words if it were found that male teachers possessed a significantly higher positive attitude towards teaching reading in the content areas, then, it would be expected that there would be a strong probability that their positive attitude toward content literacy instruction would influence their integrating literacy instruction in their classrooms (McCos-Yergian & Krepps, 2010). Additionally, according to Dupuis, Askov and Lee (1979), teachers with negative attitudes present serious challenges to incorporate content literacy instruction during inservice professional development programmes. Therefore, if the findings indicated that male teachers possessed higher positive attitudes towards teaching content area literacy, then one would expect that male teachers with high positive

attitudes would not present serious obstacles to reading specialists when they conduct inservice programmes geared to enhance content literacy instruction in the school. In fact, one would expect that they would embrace such professional development programmes. However, as stated before, there is no significant difference in attitudes towards teaching reading in the content areas between male and female teachers.

The findings for sub-question 3: “Are there significant differences in the attitudes of teachers towards teaching reading in different content areas?” are shown in Tables 9 and 10. The mean, standard deviation and standard error for subject areas are presented in Table 9. The ANOVA results for subject areas are displayed in Table 10.

Table 9

Mean, Standard Deviation and Standard Error for Subject Area

Group	N	Mean	SD	Std. Error
Natural Science	6	75.67	9.77	4.00
Language Arts	11	81.00	8.71	2.63
Modern Studies	6	70.67	13.98	5.71
Technical Vocational	13	76.54	8.01	2.22
Visual and Performing Arts	2	71.50	10.61	7.50
Business Studies	10	77.00	10.73	3.39
Mathematics	7	75.43	8.46	3.20
Total	55	76.45	9.67	1.30

Table 10

ANOVA Results for Subject Areas

Source	SS	df	Mean Square	F	Sig. or P
Between Groups	491.525	6	81.921	.862	.529
Within Groups	4560.112	48	95.002		
Total	5051.636	54			

Given that $p = .529$ is greater than $\alpha = .05$, we accept the null hypothesis and reject the alternative hypothesis. Therefore, the one-way ANOVA revealed that there is no significant difference in the attitudes of teachers towards teaching reading in different content areas. However, Orlando (1983) found that the attitudes of content area teachers differed significantly based on subject area. He also referred to similar findings obtained by Lipton and Liss (1978) and O'Rourke (1980). Thus, it was unexpected that this study would have found that there was no significant difference in teacher attitudes towards content literacy instruction in the various subject areas.

However, the results showed that Language Arts teachers had an above average mean attitude score while the other subject area teachers all had an average attitude mean score. This aspect of the results was expected. Orlando (1983) referred to O'Rourke (1980) that English teachers had significantly higher positive attitudes towards content literacy instruction than mathematics, science and social studies teachers. These findings were also consistent with research conducted by Orlando (1983) who found that teachers who appreciated content

literacy strategies the most were those who had students that were expected to do the most reading. Therefore, although the results of this study did not reveal a significant difference in the attitudes of teachers towards teaching reading in different content areas as was expected, the fact that the Language Arts department had a more positive attitude towards content literacy instruction than the other departments is consistent with the literature.

The above average attitude of the Language Arts department towards incorporating content literacy instruction in their classrooms can be beneficial to this secondary school. The teachers of this department can be used as agents of change. They can encourage the other departments to adopt content literacy instruction. The researcher expects that the teachers of this department will embrace the reading specialists that are going to be placed in their schools. As a strategy, the reading specialists can focus their initial efforts on training teachers of the Language Arts department to incorporate literacy instruction in their classrooms. Then when these teachers have successfully incorporated content literacy strategies into their lessons, they can cooperate with the reading specialists in helping their colleagues in the other departments adopt content literacy strategies in their instruction (Dupuis et al, 1979). The researcher would like to point out that about three months after the survey was conducted, the Head of Department for Language Arts revealed that their department was discussing implementing a reading programme for the school in September 2011. The researcher believes that such a decision mirrors the above average positive attitude of the teachers of the Language Arts department of this school.

The results of sub-question 4, “Are there significant differences in the attitudes of teachers towards teaching reading in the content areas based on years of experience?” are presented in Tables 11 and 12. Table 11 displays the mean, standard deviation and standard error for experience. Table 12 shows the results of the ANOVA for experience.

Table 11

Mean, Standard Deviation and Standard Error for Experience

Group	No	Mean	SD	Std. Error
< 6 years	14	73.57	9.30	2.49
6 – 15 years	20	75.65	9.67	2.16
> 15 years	21	79.14	9.67	2.11
Total	55	76.45	9.67	1.30

Table 12

ANOVA Results for Experience

Source	SS	df	Mean Square	F	Sig or P
Between Groups	281.09	2	140.54	1.532	.226
Within Groups	4770.55	52	91.74		
Total	5051.64	54			

Since $p = .226$ is greater than $\alpha = .05$, we accept the null hypothesis and reject the alternative hypothesis. Thus, the one-way ANOVA showed that there is no significant difference in the attitudes of teachers towards teaching reading in the

content areas based on years of experience. This result was expected. Although the researcher was unable to locate any studies that investigated this issue, two scenarios were developed based on the findings of Marsh (2007). In the first scenario, the researcher expected that teachers' attitudes towards content literacy instruction would become more negative based on years of experience. This expectation was based on the assumption that teacher attitude to teaching reading in the content area will follow the same pattern described by Ryans (1960) and Barnes (1985) (as cited in Marsh, 2007). They explained that during the initial years of teaching, there was an increase in the teaching effectiveness of teachers followed by a leveling out and then a gradual decline.

In the second scenario, the researcher expected to find no significant difference in the attitudes of teachers towards teaching reading in the content areas based on years of experience. This anticipation was based on the assumption that teacher attitude towards literacy instruction would observe a similar pattern discovered by Marsh (2007) concerning teaching effectiveness with experience. March (2007) found that the teaching effectiveness of teachers is relatively stable over time. Moreover, the researcher believed that scenario two was a more likely possibility because the study conducted by March (2007) was more reliable than the study conducted by the researchers in the first scenario. Thus, the results concerning sub-question 4 were expected.

Without any research, one might have thought that with experience, teachers' attitude towards content literacy instruction would become increasingly positive as they gain experience interacting with students over time. However,

developing a high positive attitude towards content literacy instruction does not appear to be automatic. Therefore, what is essential is pedagogical training. There is evidence that high quality inservice training can develop more positive attitudes in teachers towards incorporating literacy instruction in their classrooms (Dupuis et al., 1979). Furthermore, a high quality preservice elementary programme can produce teachers that would integrate literacy strategies into their classroom instructions (Hoffman et al., 2005). The researcher believes that secondary school preservice programmes based on similar principles that were used in the study conducted by Hoffman et al. (2005) can produce teachers with high positive attitudes towards content literacy instruction.

5. Conclusion

Recap of Study

The study attempted to determine the attitude of teachers in a secondary school in South Trinidad towards literacy instruction in the content areas. A survey was used to find out this general attitude, which was further analyzed with respect to pedagogical training, gender, subject areas and years of experience.

Restatement of Results and Discussion

The survey revealed that teachers in a secondary school in South Trinidad possessed an average attitude towards teaching reading in the content areas. An average attitude may result in teachers not adopting content literacy strategies in their classrooms (McCos-Yergian & Krepps 2010), which will have a negative impact on students' reading ability (Spencer et al., 2008). An average attitude towards content literacy instruction can mean that teachers in this school may not hinder reading specialists from assisting them in enhancing their reading instruction since teachers that have negative attitudes towards using literacy strategies in instruction are the ones who present tremendous barriers to integrating reading strategies in their lessons (Dupuis, Askov and Lee, 1979).

It was discovered from the t-test for pedagogical training that there was no significant difference between trained and untrained teachers with respect to their attitude towards teaching reading in the content areas. This result was unexpected since the findings of Dupuis et al. (1979) indicated that inservice programmes that provide teachers with sufficient support could produce teachers with more positive attitudes toward content literacy instruction. However, the unexpected results can

be explained if the reality is that, the training programmes that these teachers were exposed to, did not provide them with ample support. Furthermore, the use of reading specialist in secondary schools can provide teachers with the kind of support that they need to incorporate reading strategies in their classrooms.

The results of the t-test on gender revealed that there is no significant difference in attitudes towards teaching reading in the content areas between male and female teachers. This result was expected since numerous studies revealed that the gender of teachers is not significant in improving student achievement (Ashley, 2003; Butler & Christensen, 2003; Carrington & Skelton, 2003; Coulter & McNay, 1993; Ehrenberg, Goldhaber, & Brewer, 1995). The importance of this finding is that students are not expected to experience better content literacy instruction based solely on the gender of the teacher.

The results of the ANOVA on subject area indicated that there is no significant difference in the attitudes of teachers towards teaching reading in different content areas. This result was surprising because Orlando (1983) found that the attitudes of content area teachers significantly differed based on subject area. However, this study revealed that the Language Arts department possessed a higher positive attitude towards content literacy instruction than the other departments. This result was expected since O'Rourke (1980) (as cited in Orlando, 1983) revealed that English teachers had significantly more positive attitudes towards teaching reading in the content areas than teachers of mathematics, science and social studies. Reading specialists can capitalize on the above

average attitude of the teachers of this department by collaborating with them to effect positive literacy change in this school.

Finally, the results of the ANOVA for experience showed no significant difference in the attitudes of teachers towards teaching reading in the content areas based on years of experience. This result was anticipated based on the assumption that teacher attitude toward content literacy instruction remains stable over time. The assumption was based on research done by March (2007) on teachers' teaching effectiveness with time. This research suggests that teachers do not automatically develop high positive attitudes towards teaching reading in the content areas with increasing years of experience. On the other hand, high-quality training is a powerful instrument for developing positive attitudes in teachers towards content literacy instruction (Dupuis et al., 1979).

Recommendations

This study suggests that the preservice and inservice training offered by colleges and universities in Trinidad and Tobago for preparing secondary school teachers to integrate reading strategies into their instruction is inadequate. Therefore, it is recommended that such pedagogical programmes be investigated to determine to what extent they develop positive attitudes in teachers towards teaching reading in the content areas, and to what extent they equip teachers with the content literacy strategies that are vital to incorporate literacy strategies in their classrooms.

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Appendix A

Covering Letter for Survey

24th March, 2011.

Dear Colleagues,

I would like to conduct a study into the attitudes of content area teachers to content literacy instruction in a secondary school in South Trinidad. The purpose of this study is to investigate whether there exists a significant difference among content area teachers' attitude to content literacy instruction in a secondary school in South Trinidad with respect to pedagogical training, subject area, gender and experience.

I have chosen (Name of School). Your participation is voluntary and your responses will be treated with the utmost confidentiality. The Principal has given permission to carry out the investigation. The study will take the form of a short survey which you can deposit in a box that is placed in the administrative office. The survey will commence on Monday 4th April, 2011 and end on Thursday 7th April, 2011.

Thanking you in advance for your kind assistance and cooperation.

Yours faithfully,

Colin C. Karr.

Appendix B

Survey

SURVEY OF TEACHER ATTITUDES TO THE TEACHING OF READING

This questionnaire comprises **TWO** parts. In Part A, you are required to provide basic demographic data which will help in the interpretation of the findings of this study. In Part B, you are asked to describe attitude with respect to the teaching of reading.

Please note that your participation is entirely voluntary. However, I urge you to answer all the questions since your input is necessary to strengthen the validity and consequent impact of the findings. As has been said in the cover letter, your responses will be treated with the utmost confidentiality.

Section A: Demographic Data

The following questions will help us to analyze and interpret the findings of the study. **Please check the appropriate box.** Remember that all responses will be treated confidentially.

1. What is your age? (Optional)

LESS THAN 20	
20-29	
30-39	
40-49	
50-59	

2. What is your gender?

MALE	
FEMALE	

3. How long have you been teaching?

LESS THAN A YEAR	
1-5 YEARS	
6-10 YEARS	
11-15 YEARS	
16-20 YEARS	
OVER 20 YEARS	

4. Have you participated in a formal teacher training program?

NO	
YES	

5. If yes, indicate the site of your training:

Corinth Teacher's College	
Valsayn Teacher's College	
Port of Spain Teacher's College	
Mausica Teacher's College	
U.W.I. School of Education	
Other. Please specify.....	

6. How many years have you been a trained teacher?

LESS THAN A YEAR	
1-5 YEARS	
6-10 YEARS	
11-15 YEARS	
16-20 YEARS	
OVER 20 YEARS	

7. Please indicate the subject(s) that you teach.

Section B: The Teaching of Reading

Using the scale: **7- Strongly Agree; 6- Agree; 5-Tend to Agree; 4- Neutral; 3- Tend to Disagree; 2- Disagree; 1- Strongly Disagree**, please tick in the appropriate box to indicate your view on the corresponding items below:

1. A content area teacher is obliged to help students improve their reading ability.	7 Strongly Agree	6 Agree	5 Tend to Agree	4 Neutral	3 Tend to Disagree	2 Disagree	1 Strongly Disagree
2. Technical vocabulary should be introduced to students in content classes before they meet those terms in a reading passage.	7 Strongly Agree	6 Agree	5 Tend to Agree	4 Neutral	3 Tend to Disagree	2 Disagree	1 Strongly Disagree
3. The primary responsibility of a content teacher should be to impart subject matter knowledge.	7 Strongly Agree	6 Agree	5 Tend to Agree	4 Neutral	3 Tend to Disagree	2 Disagree	1 Strongly Disagree
4. Few students can learn all they need to know about how to read in six years of schooling.	7 Strongly Agree	6 Agree	5 Tend to Agree	4 Neutral	3 Tend to Disagree	2 Disagree	1 Strongly Disagree
5. The sole responsibility for teaching students how to study should lie with reading teachers.	7 Strongly Agree	6 Agree	5 Tend to Agree	4 Neutral	3 Tend to Disagree	2 Disagree	1 Strongly Disagree

6. Knowing how to teach reading in content areas should be required for secondary teaching certification.	7 Strongly Agree	6 Agree	5 Tend to Agree	4 Neutral	3 Tend to Disagree	2 Disagree	1 Strongly Disagree
7. Only English teachers should be responsible for teaching reading in secondary schools.	7 Strongly Agree	6 Agree	5 Tend to Agree	4 Neutral	3 Tend to Disagree	2 Disagree	1 Strongly Disagree
8. A teacher who wants to improve students' interest in reading should show them that he or she likes to read.	7 Strongly Agree	6 Agree	5 Tend to Agree	4 Neutral	3 Tend to Disagree	2 Disagree	1 Strongly Disagree
9. Content teachers should teach content and leave reading instruction to reading teachers.	7 Strongly Agree	6 Agree	5 Tend to Agree	4 Neutral	3 Tend to Disagree	2 Disagree	1 Strongly Disagree
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	7 Strongly Agree	6 Agree	5 Tend to Agree	4 Neutral	3 Tend to Disagree	2 Disagree	1 Strongly Disagree
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.	7 Strongly Agree	6 Agree	5 Tend to Agree	4 Neutral	3 Tend to Disagree	2 Disagree	1 Strongly Disagree
12. Content area teachers should help students learn to set purposes for reading.	7 Strongly Agree	6 Agree	5 Tend to Agree	4 Neutral	3 Tend to Disagree	2 Disagree	1 Strongly Disagree
13. Every content area teacher should teach students how to read material in his or her content specialty.	7 Strongly Agree	6 Agree	5 Tend to Agree	4 Neutral	3 Tend to Disagree	2 Disagree	1 Strongly Disagree
14. Reading instruction in secondary schools is a waste of time.	7 Strongly Agree	6 Agree	5 Tend to Agree	4 Neutral	3 Tend to Disagree	2 Disagree	1 Strongly Disagree
15. Content area teachers should be familiar with theoretical concepts of the reading process.	7 Strongly Agree	6 Agree	5 Tend to Agree	4 Neutral	3 Tend to Disagree	2 Disagree	1 Strongly Disagree

Thank you for taking the time to complete this survey. The findings of this study will be of significance to educational practice in secondary schools in Trinidad and Tobago

Word count: 13,081