

TEACHERS' PERCEPTION OF READING COMPREHENSION OF A GROUP OF 4TH GRADERS IN A JAMAICAN PRIMARY SCHOOL: AN EMPIRICAL INQUIRY

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ABSTRACT

For decades, various stakeholders have been complaining about the state of Jamaica's educational system. It seems that despite the efforts to employ different intervention programmes, the dismal performance of candidates in numeracy and literacy tests persists. The purpose of this research was to examine the extent to which teachers in rural Jamaica perceived reader competencies to be impacting the performance of students in reading comprehension at the grade four level. It also sought to determine the extent to which teachers in rural Jamaica perceived social and cultural influences to be impacting the performance of students in reading comprehension at the grade four level, and evaluate teachers' senses of efficacy and whether this impacts the performance of students in reading comprehension at the grade four level. Using a Modification of the Ohio State Teacher Efficacy Scale and Theoretical Orientation to reading Profile Index, the mean score was 76.2 ± 6.5 , 95% CI: 74.7-77.7, with the maximum value being 89.0 and the minimum value being 60.0. A very high perception exists among teachers that reader's competence influence reading comprehension of students (29.7 ± 3.2 ; 29.0-30.5)—the average score for male-students was $48.9\% \pm 11.7\%$ (95%CI: 44.8–54.1%) compared to $56.6\% \pm 18.7\%$ (95%CI: 50.7-62.5%) for girls, with there being a statistical difference between the two scores ($t = -2.417$, $P = 0.048$). Most of the studies done on reading have centered their attention on the students; but this research has approached the subject from a different vantage point, examining the instructors and how they perceived issues in reading and comprehension as critical to the teaching-learning process. This study revealed that there is a very strong perception among teachers that reading competence has a direct influence on reading comprehension among students, and that reading comprehension is equally impacted upon by self-efficacy and socio-cultural conditions

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INTRODUCTION AND BACKGROUND

The essence of reading comprehension is to create meaning from a passage. Durkin (1993) defined comprehension as purposive thinking during which meaning is derived through interactions between the text and the reader. Harris & Hodges (1995) have discussed the definition of comprehension and highlighted that it is the creation of meaning of a written passage through the exchanging of ideas between the reader and the message in the passage. RAND Reading Study Group (2002) took this notion of construction of meaning a step further and defined comprehension as the process of concurrently pulling and creating meaning through interaction and connection with written language. It contains three elements: the reader, the passage, and the activity.

A former Minister of Education in Jamaica, Ronald Thwaites, in the Sunday Observer dated January 18, 2015, also identified and expressed that the reading comprehension was the weakest area for grade four students. The Task Force on Educational Reform (2004) revealed data from the Ministry of Education, Youth and Culture that in 2003, only 57.7% of students in Jamaica achieved mastery on the Grade Four Literacy Test. The Ministry Paper 88 (2014) revealed an average 3% increase in the mastery level for the period 2009-2013. In addition, there was only a 1.1% increase from 2013 to 2014, the mastery level for those years being 76.3% and 77.4% of students, respectively. However, Thwaites expressed confidence in achieving the 2015 Millennium Target of 85% mastery in literacy. Interestingly, the researchers wanted to know what "miracles" would be performed for a 7.6% increase in literacy in the year 2015, as there ought to have been some prior research regarding the

contributing factors to previous failures which would be mitigated by appropriate strategies applied in 2003-2013.

Many studies have shown self-esteem, motivation and interest towards reading, parents' education, socioeconomic and cultural status, situation at home, as well as ethnicity being factors influencing reading literacy level (Elley, 1994; Fredriksson, 2002; Lehmann, 1996; Lietz, 1996). Denton & West (2002) have showed that preschool reading activities and reading in the home have a significant effect on future reading attainment. Similarly, Waldfoegel (2012) postulated that the main instigators on early reading for children are the words spoken in the home, the ability of parents to speak English and whether a child attends preschool. Wagner (1991) pointed on the home factor in reading literacy-home should be a catalyst which stimulates or encourages reading. Several studies have proved that reading aloud to children at preschool age has a positive effect on reading literacy level at school age (Denton, Reaney & West, 2001; Lyon, 1999; Snow, Burns & Griffin, 1998). The International Association for the Evaluation of Educational Achievement (1991) results also showed that for nine-year-olds, the number of reading materials at home, as well as the words spoken at home, plays a vital role in students' reading achievement (Taube & Mejdning, 1996).

Another factor which correlates with success in reading is school and parent cooperation (Lietz, 1996; Postlethwaite & Ross, 1992). Lesaux (2012) asked an essential question pertaining to the fact that students who are expert readers in grade three may struggle to understand texts in the upper grades. From his research, his answer lies in the distinction between the procedural

skills that are essential for reading proficiency and the conceptual skills and knowledge essential for reading proficiency. According to O’dea & Mugridge (2012), students of highest school socioeconomic status have higher literacy scores. In its 1998 report on literacy, the National Research Council showed that families who know the value of assisting their children with literacy skills and who are able to do so (that is, to provide books and techniques) are highly likely to be involved in productive literacy activities (Snow, Burns & Griffin, 1998). Such literacy activities have been shown to translate into cognitive gains and enhanced print awareness that facilitate school readiness. Kennedy, Ridgeway & Surman (2006) stated that literacy values, practices, strategies, tools and activities are engraved in children’s everyday experiences. It was therefore logical that a sociocultural approach (Fostering Language and Literacy in Classrooms and Homes) sought to understand and use the literacy perspectives and resources of families of ethnically and linguistically diverse backgrounds as a basis to develop strong literacy foundations (Dickinson & Tabors, 2002; Risko & Walker-Dalhouse, 2007).

Allinder (1994) postulated that teachers with a strong sense of self-efficacy tend to demonstrate greater levels of planning and organization. In other words, they display greater enthusiasm for and commitment to teaching. The present research is an investigation into teachers’ perspectives on factors responsible for low performance in reading comprehension at grade four. It will provide a wealth of information as it relates to these teachers’ perspectives on reader competencies, social and cultural influences, and their sense of self-efficacy towards poor performance in reading comprehension at the grade four level. Therefore, the following research questions were explored: 1) To what extent do teachers in rural Jamaica, perceive

reader competencies to impact the performance of students in reading comprehension at the grade four level? 2) To what extent do teachers in rural Jamaica perceive social and cultural influences to impact the performance of students in reading comprehension at the grade four level? And, 3) Do teachers’ senses of self-efficacy impact the performance of students in reading comprehension at the grade four level?

From those research questions, some hypotheses were developed and tested. The hypotheses were:

1. H₀: Readers’ competencies do not impact the performance of students in reading comprehension.
2. H₀: Social and cultural influences do not impact the performance of students in reading comprehension.
3. H₀: Teachers’ senses of self-efficacy do not impact the performance of students in reading comprehension.

CONCEPTUAL FRAMEWORK

LITERACY

Literacy, as outlined previously in chapter one, is defined as the ability to read and write. This view is held by cognitive psychologists who have given useful data in terms of knowing how reading operates (Adams, 1990; Ehri, 1999; Perfetti, 1999; Rayner, Foorman, Perfetti, & Pesetsky, 2001). From this tradition, Lewis (2010) viewed literacy as translating the alphabetic system to English. It involves transferring from the spoken to the written and the ability of a person to explain with enough speed and accuracy what is in the print. In this regard, McCutchen (1995) emphasized the mental processes of writing. From a cognitive psychological viewpoint, literacy is a craft which can be taught with suitable instructional methods to the average student who has no

reading disabilities (Colheart, 1998; Labov, 2003; Stanovich, 1998). This skills-based approach to literacy has influenced literacy studies and has inspired several research and policies about school-based reading and writing (Allington & Woodside-Jiron, 1999; Rayner, et al., 2001).

Conversely, by the 1970s, new ideas about literacy that disputed the skills-based definition of reading and writing began to emanate. Researchers illustrated that readers often used context clues within the text to decipher words, through a process of sampling, inferring, and predicting (Goodman, Watson & Burke, 1996). They further recommend that teachers could support students with reading difficulties if teachers understood their reading errors. Brandt (2001) suggested that these two competing views of skills-based and context-based literacy do not value the profit of reading and writing. While placing her research within the view of the context-based pattern of literacy, she explained that to treat literacy as a resource is to stress that its pattern is derived from what can be exchanged. This view speaks to the competitiveness surrounding methods of literacy instruction.

LITERACY INSTRUCTION: READING AND WRITING

Oral language abilities are developed in the home, before entering school. Children realize that objects can be associated with certain words (Rayner, et al., 2001; Wells, 1986). Whether in a whole language (Goodman, 1989), phonics driven (Ehri, Nunes, Stahl, & Willows, 2001), or balanced instruction classroom (Pressley, 2002), students begin to learn clearly the letter-sound combinations or grapho-phonemic correspondences that make up the English alphabetic system. While several stage and phase theories exist to describe this process of reading development (Adams, 1990; Chall, 1983; Ehri, 1999), the explanation of

Roller (1998) is useful because she specifically examined readers who experience difficulties and she focused on both reading and writing. Roller (1998), in her descriptors of readers who struggle, stated that during the process of becoming literate, students sometimes experience challenges, either in decoding, comprehending, or writing. In terms of decoding words, students may not be knowledgeable of the letters of the alphabet and their sounds (Ehri, 1999). Students who are faced with the challenge of decoding usually have less memory to focus on comprehension. They do not have enough vocabulary and have little background knowledge to understand the text. They also lack meta-cognitive strategies to guide their understanding (Perfetti, Marron, & Foltz, 1996).

CAUSES OF READING DISABILITY

Admans et al. (1998) stated that the ability to read is not only dependent on one's environmental exposure and stimulation, but is also affected by one's genetic inheritance. Admans et al. support this position in stating that reading problems are found in every group, in every primary classroom, in disadvantaged or high-risk population, and many children learn to read, some easily and others with great difficulty. Admans et al. therefore concluded that reading ability occurs along a continuum, and biological factors are influenced by and interact with a reader's experiences. They purport that differences in brain function and behavior associated with reading difficulty may arise from environmental and genetic factors.

According to Bond et al. (1984), causes of reading disability are numerous. They state that because the process of reading is so complex, there are many opportunities for unfortunate complications to retard its growth. In their reflections, they specified four broad areas of disabilities, namely (a) physical, (b) emotional,

(c) environmental, and (d) cognitive and language factors. Smith & Johnson (1980), in making their contribution to the cause of reading disability, have identified seven crucial factors that affect the development of reading. These factors are (a) intelligence, (b) maturation and readiness, (c) motivation, (d) physical condition, (e) emotional condition, (f) environmental condition, and (g) instructional programme. These areas are also mentioned by Catts & Kamhi (1999) as factors affecting reading. The areas mentioned by Bond et al. (1984), Smith and Johnson (1980) and Catts & Kamhi (1989) are encompassed in the two broad areas: environmental and genetic influences, advanced by Admans et al. (1998).

SOCIO-ENVIRONMENTAL FACTORS

Spache (1980), Smith & Johnson (1980) and Bond et al. (1984) stated that reading reflects cultural background. A child's environment may or may not promote the ability to read. Bond et al. (1984) clearly outlined that children who are from situations of broken homes, frequent quarrels, child abuse, overprotection, parental domination, anxiety, hostility or destructive rivalry among siblings are likely to experience nervous tension and feelings of insecurity. These children are likely to be poor readers. Cole (2011) concurred with Bond et al. that the attitudes and behavior of parents, especially their involvement in home learning activities, can be very detrimental to children's achievement and can overpower the control of other factors. In his research, Cole found that families and parents are crucial to children's achievement. He further reported that parental involvement in their children's literacy practices impacts greatly on children's performance academically and is also a greater force for academic success than other family background variables. Cole discovered that the home is crucial, being where parents have the greatest influence on the achievement of young people,

through supporting their learning in the home, rather than supporting activities in school. He also found that early intervention is vital, in that, the earlier parents become involved in their children's literacy practices, the more profound the results and the longer lasting the effects.

Children learn before they enter formal education. Harris & Smith (1980) advised that in creating interest in reading, the child should be stimulated with life and the world around him. They also believed that interest in reading should be created before the child enters school. Waldfogel (2012) discovered that family socioeconomic status is strongly correlated both with early literacy (and other academic outcomes) and literacy later in the school years. He stated that socioeconomic status comprises several elements such as family income, parents' educational attainment, and parents' occupation.

Bond et al. (1984) pointed out that the relationship between teacher and students can affect learning to read, as some teachers are warm and supportive, while others are cold and insensitive. Parkes (2000) stated that shared reading provides a safe nurturing environment where the slow learner can take part in non-threatening experiences. Usher (2012) discussed that schools play an important role in students' motivation, by picking up where parents leave off or stepping in when parents are unable or reluctant to be actively engaged. Leahy (2006), in his survey of selected teachers' opinions, revealed that smaller class sizes increase students' achievement. Waldfogel (2012) contended that although out-of-school factors contribute sometimes in major ways to literacy disparities, schools have a responsibility to try to close such gaps.

Fargan (1997) postulated that learning centers should be beautifully decorated. He made specific reference to "reading learning centers"

which, he stated, should be organized according to interests, reading levels, or reading skills of the children. The centre should be print-rich. In his instruction, Fargan (1997) emphasized a learning environment which is physically arranged to accommodate individual needs, easy access to materials, and active participation of the learner. Scherer (1998) stated that these centers could be located on a table, on top of a bookshelf, in a cardboard box or under the table. Carson (1999) and Rush (1990), in supporting students' participation, intimated that the learner should be a part of the planning of his own educational offerings.

THE TEACHER

Smith & Johnson (1980) regarded the teacher as one of the greatest factors in the teaching of reading. They state:

The teacher is in all likelihood the one factor that makes the greatest difference in students' achievement. The critical factor is the ability of the teacher to diagnose students' needs, plan suitable activities, select proper materials, monitor progress and perform the many necessary teaching tasks skillfully while at the same time motivating students to learn and giving them the right amount and kind of personal support. (p.279)

Bond et al. (1984), in their deliberation, reflected similar views as Smith & Johnson (1980) that the teacher is an important factor in the learning process and can impact positively or negatively on the learner. Teachers, they cited, should be well trained, should maintain good pupil/teacher relationship, and should achieve proper balance in developing skills and abilities in the reading programme. In further argument, they reasoned that perfunctory, unorganized, and meaningless teaching of content in many schools is partially responsible for the retardation in reading among students.

As Smith & Johnson (1980) intimated, the teacher is responsible for managing the reading programme in such a way that the needs of each child are met. Harris and Smith (1980) believed that the teacher's expertise does not only allow for planning a set of activities for the learner, but the teacher should acquire the ability to adjust activities to suit individual progress. Shanker & Ekwall (1998) recommended that all students should be taught and should practice reading at a manageable, yet challenging, level of difficulty, so that they will be successful. They further recommended use of the Language Experience Approach (LEA), a method of teaching literacy based on children's existing experience of language. This, they believed, would boost the teaching-learning process.

GENDER GAP

Evans (1999), in his study, investigated the literacy challenges in Jamaica and concluded that boys consistently underperform in literacy. What might be the theoretical reasons behind the gender gap in reading? Willis (1989) offered three different explanations:

1. Biological determinism: "Girls are just born to read better".
2. Social determinism: "Girls are the ones who study languages".
3. Free choice: "Boys just do not choose reading".

One of the suggestions to improve boys' reading is changes in cultural environment. The Canadian Council on Learning (2009) reported that girls do more independent reading, reading for enjoyment, or reading for general interest than boys. More girls prefer to read and are more confident readers than boys. Girls spend more time sharing and discussing reading materials and doing homework than boys. Boys on the other hand, reported that

they prefer watching television or movies over reading. Boys spend less time reading than girls, are less motivated to pick up a book, do not value reading as an activity, are less confident readers, and see themselves as having lower reading skills than girls.

As a result of their attitudes and behaviours, girls tend to have a greater number of experiences with reading activities, which may explain their better performance in reading assessments. By contrast, boys' attitudes and behaviours may be acting as barriers in the development of reading skills. The Canadian Council on Learning (2009) further reported that differences in genre preferences are frequently cited as an explanation for differences in reading performance between boys and girls. While girls generally like to read narrative fiction, boys typically enjoy a wider variety of genres covering a broader range of topics.

A recent study in the United States found that the genres preferred by boys were available in only one-third of classrooms, in part because teachers disapprove of them as appropriate forms of school-based reading. Others have claimed that these genres do not usually find their way into classrooms because teachers are predominantly female, and teachers' own reading preferences are reflected in the book they select for their students. However, the Council recommended exposing boys to reading from an early age and providing boys with reading choices to encourage boys to read more.

THE LANGUAGE BATTLE

Caribbean linguists emphasized that the language spoken both at home and school causes low students' performance on literacy (Craig, 1976, 2006; Devonish, 1986; Pollard, 1998). This is a result of the various Creole languages spoken with an official language in

the Caribbean countries (Craig, 1980; Roberts, 1988). Caribbean linguists contended that English should be taught within a bilingual framework to improve literacy scores (Craig, 2001; Devonish & Carpenter, 2007). Within the Caribbean, educators/linguists such as Bryan (2001), Craig (2006), and Pollard (1993) have suggested transitional forms of bilingual education, while others like Devonish (1986; 2007) have proposed full bilingualism and changing the status quo to make both Standard Jamaican English (SJE) and Jamaican Creole (JC) the official languages of Jamaica. Instruction would therefore be in both Standard Jamaican English and Jamaican Creole.

Research has shown that when the home language concurs with the school's, the transition from home to school is easier for the student; otherwise, if there is a disjuncture between the language at home and the language taught at school, then challenges may arise for the students (Delpit, 1995; Heath, 1983).

The research sought to determine the factors responsible for low performances in literacy at the grade four level. It provided a wealth of information as it relates to the factors which are responsible for low performances in literacy. Specifically, the study sought answers for the following research questions:

1. To what extent do teachers in rural Jamaica perceive reader competencies to impact the performance of students in reading comprehension at the grade four level?
2. To what extent do teachers in rural Jamaica perceive social and cultural influences to impact the performance of students in reading comprehension at the grade four level?
3. Do teachers' senses of self-efficacy impact the performance of students in reading comprehension at the grade four level?

METHODOLOGY AND RESEARCH DESIGN

Leedy & Omrod (2001) stated that a research design is a careful set of plans developed by a researcher that provides criteria and specifications for the study or research. The design for this study was a cross-sectional descriptive survey. According to Gay et al. (2006), a descriptive research determines and reports the way things are; it involves collecting numerical data to test hypotheses or answer questions about the current status of the subject of the study. A survey is a written or oral questionnaire. It is usually inexpensive and easy to conduct (Airasian et al., 2006). Questions were appropriately worded to allow for ease of response by the participants. The sample selection was done in a random manner to prevent sampling bias and to ensure that it represented the population as closely as possible. In addition, it guaranteed and reassured participants of confidentiality and anonymity, while reducing the likelihood of participants being untruthful and misrepresenting the facts.

Airasian et al. (2006) stated that a cross-sectional survey is one in which data are collected from selected individuals in a single time period. The greatest advantage of such a study is that it is convenient. Wiersma & Jurs (2019) pointed out that a cross-sectional design has some logistical advantages, in that, data collection is not spread over an extended period and follow-up of individuals is not difficult. For these reasons, Wiersma & Jurs (2019) proposed that cross-sectional designs are practical for master's project research. Therefore, it is on this basis that the researcher sought to do a cross-sectional survey.

THE SAMPLE AND SAMPLING

Eighty-five teachers were selected to participate in this study. The schools that formed the sample were selected using

purposive sampling technique. It is the process of selecting a sample that is believed to be representative of a given population based upon certain criteria (Airasian et al., 2006). The researchers sought to conduct the research in ten primary schools from both the public and private sectors in the North-West St. Catherine area. The main criterion for selection was proximity of the schools to the principal researcher's residence. The researchers used simple random sampling to select a total of 85 teachers who had experience teaching a grade four class. This is the process of selecting a sample in such a way that all the members of the population have a fair chance of being selected for the sample (Airasian et al., 2006). A table of random numbers was used to select the sample of 85 teachers. All members of this population were listed. All members on the list were assigned a consecutive number from 1 to 85. An arbitrary number was selected in the table of random numbers. If the number corresponded to a number assigned to an individual in the population, then that individual was assigned to the sample. This was repeated until 85 teachers were selected.

PILOT STUDY

To determine reliability of the questionnaire, a pilot study comprised of seventeen teachers was conducted. This was a pre-testing of the questionnaire to detect deficiencies that were not apparent by simply reviewing the items.

The pilot study for the teachers was conducted in schools which were not under survey. Wiersma & Jurs (2019) stated that the persons selected to participate in the pilot study should not be a sample of those who would be used in the actual study. However, those selected for the pilot study should be knowledgeable of the variables of the study, in order to make valid judgments. Teijlingen and Hundley (2001) pointed out that one of the concerns of pilot study is that of contamination. This may arise

where pilot participants are included in the main study, but new data are collected from these people. The researcher, therefore, will not select persons in the sample for the pilot test because previous exposure to the items on the questionnaire may prejudice the response of these participants.

Data collected via the pilot study were used to correct deficiencies discovered in the instruments, as respondents provided viable feedback in the process of completing the questionnaires. The research plan, including the research questions and the construction of the items contained in the instrument, was modified as a result of the pilot study, to address faults and ambiguities. The pilot test provided valuable insight on the possible responses of prospective respondents to the research. It aided the main researcher in making effective preparation to preempt and address any obstacles that might arise. Before administering the questionnaire, the researchers sought and received permission to conduct the study from the principals of the selected schools.

INSTRUMENTATION

The teachers' questionnaire investigating factors that are responsible for low performance in Reading Comprehension was an amalgam of items from the Ohio State Teacher Efficacy Scale (OSTES; Tschannen-Moran & Hoy, 1998) and the Theoretical Orientation to Reading Profile (TORP; DeFord, 1985). They were adapted and modified by the researchers for data collection in this research. The 24 items on the original OSTES were evaluated to determine their applicability to this project. Nine of these items were used and modified so that they would better match the present research. For example, the original, "How well can you implement alternative strategies in your classroom?" was changed to "I can implement alternative strategies in teaching

comprehension." The 28 items on the original TORP were also evaluated and four of these items were used. One example is the item: "An increase in reading errors is usually related to a decrease in comprehension."

Pallant (2011) suggested that Cronbach's Alpha values that are above .7 are considered acceptable; however, values above 0.8 are preferable. Therefore, the scales TORP and OSTES had good internal consistency, with Cronbach's Alpha Coefficient reported at 0.80 and 0.86, respectively. The instrument was created as a self-administered questionnaire. In a self-administered survey, the participants must understand the information, that is, the layout, which is the visual aspect, as well as the wording, which is the verbal aspect. In a self-administered survey, participants receive introductory materials and instructions.

It is the responsibility of the researchers to ensure that the prospective respondents comprehend what is expected of them before completing the instruments. Therefore, the researchers took time out to explain the nature of the research and what was expected of the respondents. Queries and misunderstandings were addressed to ensure that the task was accurately performed. In addition, the items of the instruments were made as unambiguous as possible.

Advantages of self-administered questionnaires include the fact that they are cheap and easy to administer, preserve confidentiality, can be completed at respondent's convenience, and can be administered in a standard manner (Leung, 2001). The self-administered teachers' questionnaire consisted of two sections. Section A comprised six items collating demographic information such as gender, professional qualification, number of years in the teaching profession, among others. Section B consisted of 21 Likert items relating to reader competencies, social and cultural influences,

and teachers' sense of self-efficacy (i.e., The instrument may be provided on request)

DATA COLLECTION PROCEDURES

The teachers' questionnaire was self-administered. The principals of the 10 schools involved in the study were approached and the researchers sought their permission to conduct the survey at their schools. Details of the study were outlined to the principals by the researchers. A carefully constructed cover letter for the study, bearing information relating to the purpose and significance of the research to be conducted, along with a letter of introduction from the University of the West Indies (UWI), were provided to the principal of each school. Permission was sought from the 85 teachers for their participation in the survey, using the cover letter as an introduction. Seventy-four of the respondents participated in the final study.

Several ethical issues were considered in conducting this study. The primary concern of the researchers was the safety of the research participants. This was achieved by carefully considering the risk/benefit ratio, using all available information to make an appropriate assessment and continually monitoring the research as it progressed.

ETHICAL CONSIDERATIONS

The researchers obtained informed consent from each research participant. This was done in written form initially, then orally after the participant had had the opportunity to carefully consider the risks and benefits and to ask any pertinent questions. The researchers took the following into consideration as it relates to privacy and confidentiality concerns.

Disclosure: Prospective respondents were made fully aware of the nature and purpose of the research, the guidelines used and the benefits to the respondents participating in the

research. A statement which speaks to confidentiality or anonymity of the respondents can be found in the cover letter.

Understanding: Each participant was afforded the opportunity to express his/her understanding of what had been explained and was granted the opportunity to ask questions and have them answered by the researcher. The informed consent document was written in language that was easy to understand.

Confidentiality was of paramount importance, so participants' names were not required. Thus, each participant's identity was protected. Questionnaires were distributed to all participants.

Competence: Each participant was competent to give consent.

Voluntariness: The respondents' agreement to participate in the research was spontaneous, free of any conviction or promises of favours unlikely to result from participation.

The questionnaires were distributed directly to the prospective respondents and were collected by the researchers. Participants were encouraged to complete questionnaires while the researcher implementing the questionnaire was on the school compound, so that any clarifications needed were provided. In cases where this was not possible, the participants were given approximately two (2) days within which to complete the questionnaires. Some questionnaires were completed and collected within a two-week time frame.

DATA ANALYSIS AND PRESENTATION PROCEDURES

Descriptive statistics, Analysis of Variance (ANOVA), and Linear Regression were used to analyze the data. Bastick & Matalon (2007) stated that descriptive statistics is a summary of data. It involves tabulating, depicting and

describing data. It indicates several characteristics common to the entire sample, for example mean, modes, median, standard deviation, skewness, etc. According to Bastick & Matalon (2007), ANOVA is used to find out if there are significant differences between the means of more than two groups. This is a general form of the T-test that is appropriate to use with three or more groups. ANOVA yield what is known as an F-value. As the T-test, the F-value is checked in a statistical table to see if it is statistically significant. A value of P = 0.05 or lower is good which means that the finding has a 95% chance of being true. It is interpreted

quite similarly to the T-test. When more than two groups are being compared, the F-value will not, by itself, tell us which of the means are different. A further test or procedure called a post hoc analysis is required to find this out. Linear Regression requires one independent variable and one dependent variable. According to Pallant (2011), always look at the B, Beta and R squared which are used for correlation on prediction. An R Square of 0.60 has a great impact. The items in section B of the teachers' questionnaire were analyzed using the table below.

Table 1.Scores assigned to Likert Scale Items

Response Modes	Abbreviation	Assigned Score
Strongly Agree	SA	5
Agree	A	4
Undecided	U	3
Disagree	D	2
Strongly Disagree	SD	1

The portions of Section B that contained the Likert items were scored and coded using the 5-point Likert Scale, with a score of 5 indicating a

strong response and a score of 1 indicating a low response.

Table 2.Research Questions and Related Questionnaire Items

Research Questions	Related Questionnaire Items
To what extent do teachers in rural Jamaica perceive reader competencies to impact the performance of students in reading comprehension at the grade four level?	Q1, Q2, Q3, Q4, Q5, Q6, Q7
To what extent do teachers in rural Jamaica perceive social and cultural influences to impact the performance of students in reading comprehension at the grade four level?	Q8, Q9, Q10, Q11, Q12, Q13, Q14
Does teachers' sense of efficacy impact the performance of students in reading comprehension at the grade four level?	Q15, Q16 Q17, Q18, Q19, Q20, Q21

DEFINITION OF KEY TERMS

Throughout the research report, terms will be used that need to be defined. The following glossary should be of valuable assistance:

Grade Four Level: This level is the fourth grade in the fourth school year of primary education

in the Jamaican school system that instructs students who are normally nine years of age.

Grade Four Literacy Test: This is an assessment designed by the Ministry of Education and administered at grade four, in order to ascertain the reading level of the child.

Learning Environment: This includes all aspects of the school that enable the student's learning-teachers, materials, instruction, physical accommodation and nutrition.

Mastery in Reading: This status is assigned to students who perform at commensurate level with that of their grade.

Non-Mastery in Reading: This status is assigned to students who perform below the grade expectation in the reading test.

Performance: This is the action of performing which means to carry out or complete an action or function.

Competency is the ability to do something successfully or efficiently.

Social Influence is the exchange in a person's thinking, feeling, or attitude that comes from involvement with another person or a group.

Cultural Influence is the historical, geographical, and familiar factors that affect assessment and intervention processes.

Teachers' Sense of Self - Efficacy is the belief in the teachers' ability to have a positive effect on students' learning.

Perspective is a particular attitude towards or way of regarding something; a point of view.

Reading Comprehension is the constructing of meaning from text.

DATA ANALYSIS, PRESENTATION AND FINDINGS

Table 3 presents descriptive statistics on age and teaching experience for the sampled respondents. The mean age of the sampled respondents was 40.1±8.6 years old, with the average length of teaching experience being 13.6±7.9 years.

Table 3. Descriptive statistics of Age and Teaching Experience of respondents, n =74

Variables	Mean±SD; 95%CI
Age	40.1±8.6; 38.1-42.1
Teaching experience	13.6±7.9; 11.8-15.5

Figure 1 shows the gender of the sampled respondents. Of the sampled respondents (n=74), the majority were females (n=68,

91.9%), compared to only 8.1% being males (n=6).

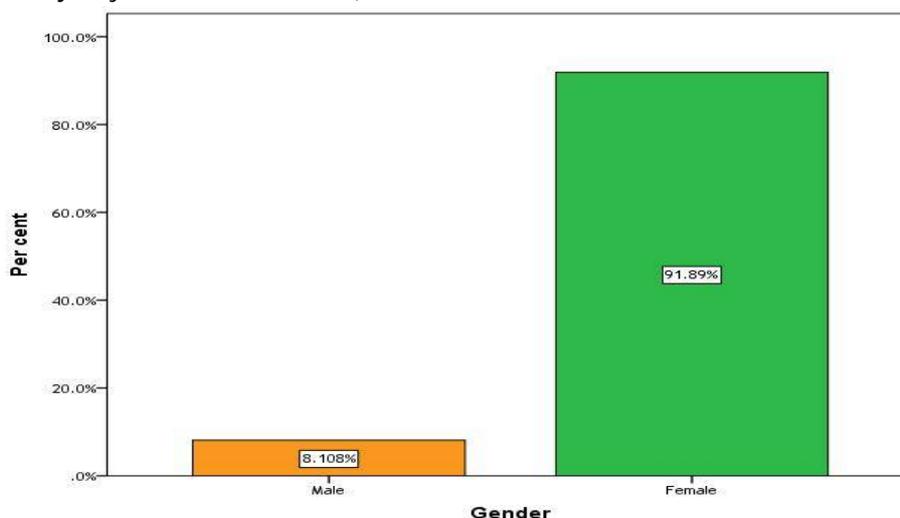


Figure 1. Gender of respondents

Most of the respondents worked at the Primary level of the education system (n=57, 77.0%,

Figure 2), with 8.1% being at the Early Childhood level.

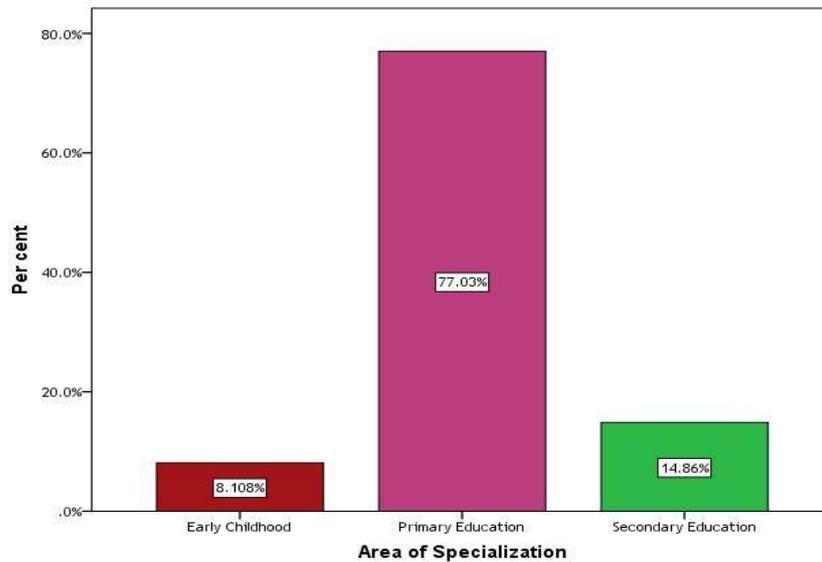


Figure 2. Area of Specialization of respondents

The responses of the sampled respondents on the question, 'What is your highest level of educational attainment?' are expressed in Figure 3. Of the respondents (n=74), 2.7% (n=2)

had certificates, 28.4% (n=21) had diplomas, 58.1% (n=43) had a bachelor degree and 10.8% (n=8) a Master of Science or Education degree.

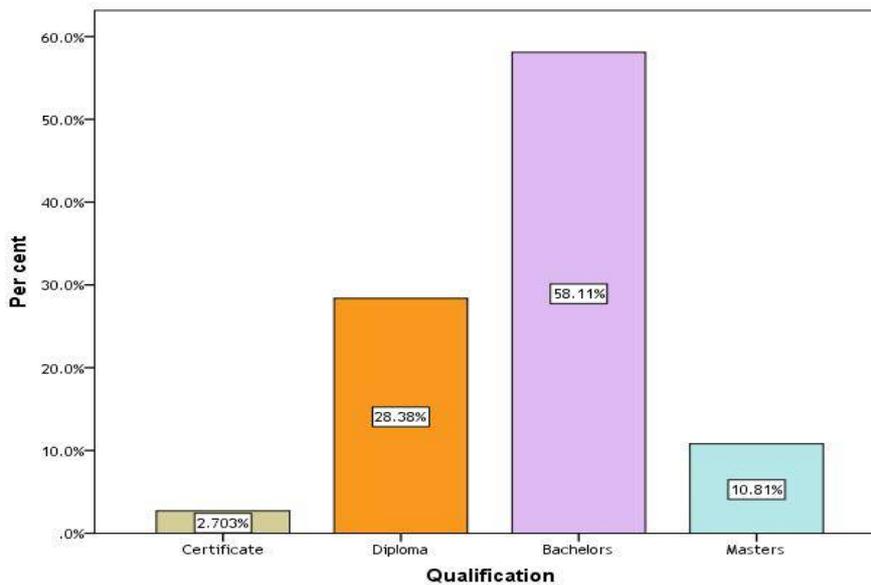


Figure 3. Qualification of sampled respondents

Figure 4 depicts a scatter plot of age of respondents by gender. There is a statistical difference between the age of males and

females, with the average age of males being 31.7 ± 5.4 years old, compared to 40.8 ± 8.4 years old for females ($t = -3.760, P = 0.009$).

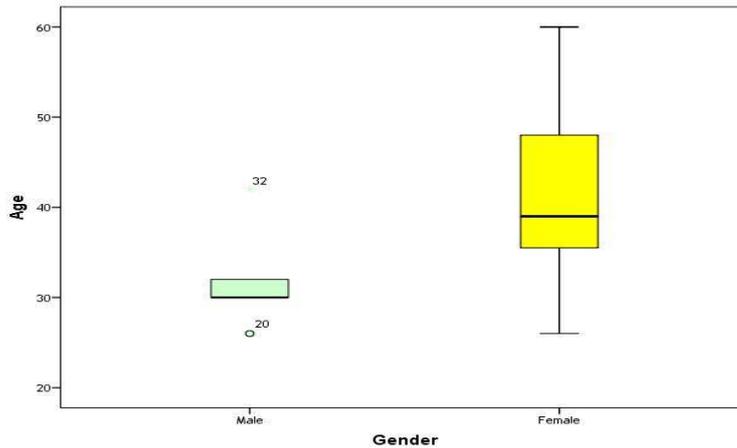


Figure 4. Scatter diagram of age of respondents by gender

Figure 5 shows a scatter diagram of the respondents' teaching experience by gender. On average, females have taught for 14.2 ± 8.0

years, and males for much less: $(7.5 \pm 2.6$ years)- $t = -4.646, P = 0.048$.

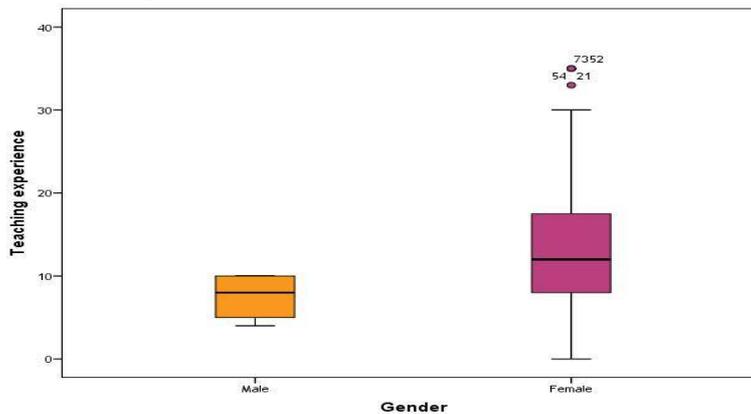


Figure 5. Scatter plot of teaching experience by gender of respondents

The mean age of respondents who indicated having a certificate was 57.0 ± 1.4 years old (95%CI: 44.3-69.7 years old), compared to 41.0 ± 8.5 years old (95%CI: 37.2-45.0 years old) for those with a diploma; 38.7 ± 7.2 years old (95%CI: 36.4-40.9) for those who had a

bachelor's degree and 41.0 ± 12.0 years (95%CI: 31.0-51.0 years old) for those with a master's degree (Figure 6). Using Analysis of Variance (ANOVA), there is a statistical difference among the ages of respondents with certain certification ($F [3,70] = 3.453, P = 0.021$).

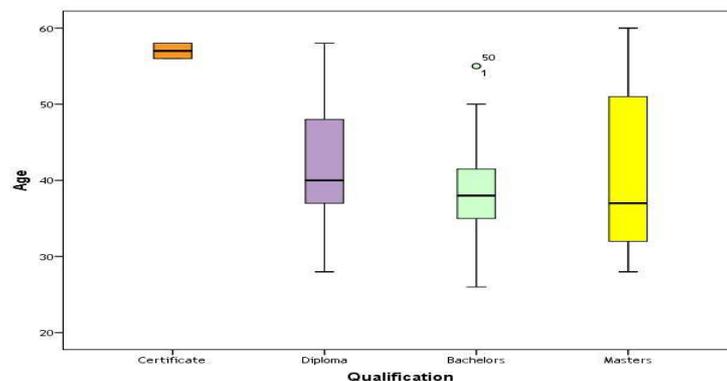


Figure 6. Scatter plot of age by qualification of respondents

Research question 1: *To what extent do teachers in rural Jamaica perceive reader competencies to impact the performance of students in reading comprehension at the grade four level?*

Table 4 presents descriptive statistics for a Modified OSTES and TORP Index. Using a Modification of the OSTES and TORP Index, the mean score was 76.2±6.5, 95% CI: 74.7-77.7,

with the maximum value being 89 and the minimum value being 60.0. It can be deduced from the mean score and the maximum value that teachers have a high perception that the reader's competence will influence his/her performance in reading at the grade four level. Furthermore, there is a very high perception among the sampled respondents that reader competence influence reading comprehension of students (29.7±3.2; 29.0-30.5).

Table 4.Descriptive statistics of the Modified OSTES and TORP Index

Details	Mean±SD; 95%CI
Overall Modified OSTES and TORP Index	76.2±6.5; 74.7-77.7
Reader Competency Index	29.7±3.2; 29.0-30.5
Socio-Cultural Influences Index	21.7±3.6; 20.8-22.5
Self-Efficacy Index	24.5±1.9; 24.4-25.3

Research Question 2: *To what extent do teachers in rural Jamaica perceive social and cultural influences to impact the performance of students in reading comprehension at the grade four level?*

On examination of Pearson's Product-Moment Correlation Matrix between Age and the

Modified OSTES and TORP Index, it was revealed that no significant statistical correlation existed for this inquiry (Table 5). This means that the perspective of the sampled respondents on the Modified OSTES and TORP does not change with their age, indicating that age is not a factor influencing the Modified OSTES and TORP Index.

Table 5.Pearson's Product-Moment Correlation of Age and the Modified OSTES and TORP Index

		Age	Modified OSTES & TORP Index
Age	Pearson Correlation	1	0.101
	Sig. (2-tailed)		0.391
	N	74	74
Modified OSTES & TORP Index	Pearson Correlation	0.101	1
	Sig. (2-tailed)	0.391	
	N	74	74

Table 6 presents the multiple analysis of variance. The selected independent variables are gender, qualification, area of specialization and length of service, with the dependent variable being the Modified OSTES and TORP. On examination of the variable, no statistical

difference emerged between any of the aforementioned independent variable and the Modified Ohio State Teacher Efficacy Scale (OSTES) and Theoretical Orientation to Reading Profile (TORP).

Table 6. Univariate Analysis of Variance for selected socio-cultural variables and their likely impact on the Modified OSTES and TORP Index

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	103.788 ^a	4	25.947	0.601	0.663
Intercept	3730.370	1	3730.370	86.452	0.000
Gender	22.770	1	22.770	0.528	0.470
Qualifications	47.329	1	47.329	1.097	0.299
Area of Specialization	42.559	1	42.559	0.986	0.324
Length of teaching experience	.347	1	0.347	0.008	0.929
Error	2977.307	69	43.149		
Total	433093.000	74			
Corrected Total	3081.095	73			

Table 7 examines whether there are statistical differences between selected demographic variables and a sub-scale of the Modified OSTES and TORP, which is Socio-Cultural Influence

Index. The perceived Socio-Cultural Influence Index does not differ based on any of the selected demographic variables ($P < 0.05$).

Table 7. Univariate Analysis of Variance for selected demographics and their likely impact on performance of students in reading comprehension at the grade four level

Source	Type III Sum of Squares	df	Mean Square	F	P
Corrected Model	58.02 ^a	5	11.603	0.863	0.511
Intercept	0.000	0	.	.	.
Age	44.3	1	44.333	3.298	0.074
Years of Experience	20.2	1	20.241	1.506	0.224
Qualification	0.10	1	0.101	0.008	0.931
Area of specialization	0.001	1	0.001	0.000	0.993
Gender	1.6	1	1.636	0.122	0.728
Error	914.2	68	13.444		
Total	35740.0	74			
Corrected Total	972.2	73			
Socio-Cultural Competence Index					

Table 8 exhibits an OLS regression of selected socio-cultural variables for the teachers and their likely influence on the dependent variable (i.e., reading comprehension scores). There were four selected socio-cultural variables (i.e., age, teaching experience, gender and

qualification of respondents) and none of them emerged as factors of reading comprehension scores of the students for each teacher, $P > 0.05$, with there being linear relationship between the independent and dependent variables - ($F [5,58] = 1.136, P = 0.350$).

Table 8. Ordinary Least Square (OLS) regression of selected socio-cultural variables and their likely impact on the Reading Comprehension Scores

Model	Unstandardized Coefficients		Standardized Coefficients	t	P value	95.0% CI	
	B	Std. Error	Beta			Lower - Upper	
Constant	52.1	12.8		4.058	0.000	26.5 - 77.8	
Age	0.3	0.4	.133	.663	0.509	-0.5 - 1.0	
Teaching experience	-0.5	0.4	-.261	-1.341	0.184	-1.3 - 0.3	
Male	7.3	7.3	.123	1.002	0.320	-7.3 - 21.9	
Bachelor's	-2.6	4.3	-.079	-.600	0.550	-11.3 - 6.1	
Master's	-8.5	6.7	-.162	-1.256	0.213	-21.9 - 5.0	
Diploma & Certificate (reference)							

Of the selected demographic variables (gender, qualification, age and teaching experience of the sampled respondents), none of them impact on perceived socio-cultural influence index (Table 9, $P > 0.05$; $F [5, 68] = 0.990$, $P = 0.430$).

Table 9 . Ordinary Least Square (OLS) regression of selected demographic variables and their likely impact on Socio-Cultural Influence Index

Model	Unstandardized Coefficients		Standardized Coefficients	t	P	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
Constant	16.417	2.878		5.704	0.000	10.674	22.160
Male	-0.713	1.638	-0.054	-0.436	0.665	-3.982	2.555
Bachelor's	0.482	0.974	0.066	0.495	0.622	-1.461	2.425
Master's	-0.518	1.510	-0.044	-0.343	0.732	-3.531	2.494
Age	0.166	0.086	0.389	1.922	0.059	-0.006	0.338
Teaching experience	-0.114	0.090	-0.248	-1.266	0.210	-0.294	0.066

Research question 3: *Do teachers' senses of efficacy impact the performance of students in reading comprehension at the grade four level?*

A scatter plot between reading comprehension score and the modified OSTES and TORP Index

is depicted in Figure 7. On examination of the scatter plot, there is no linear correlation between ($F [1, 72] = 1.384$, $P = 0.243$) the two aforementioned variables that is supported by an OLS regression in Table 8.

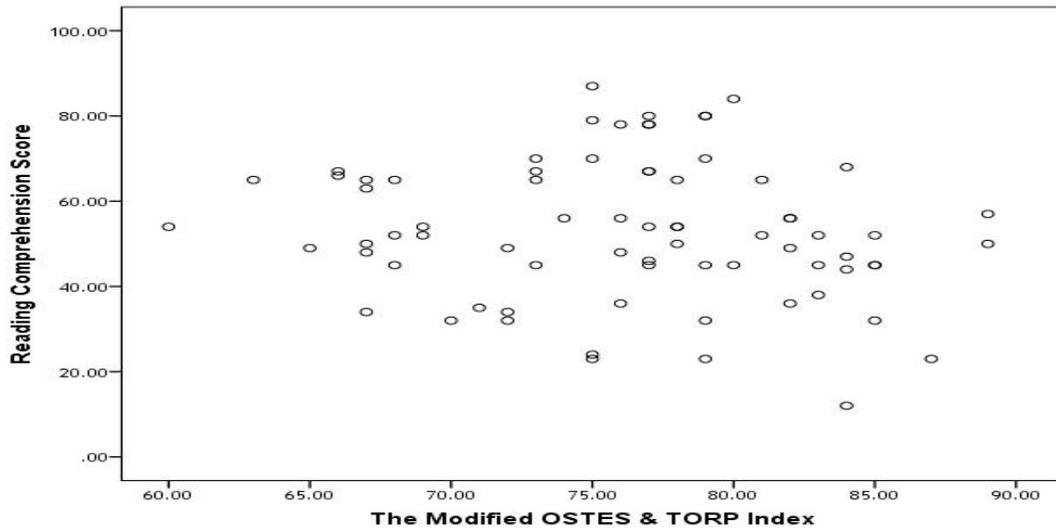


Figure 7. Scatter plot between reading comprehension score and the modified OSTES and TORP Index

Table 10 Ordinary Least Square (OLS) regression of the Modified OSTES and TORP Index and the Reading Comprehension Scores

Model	Unstandardized Coefficients		Standardized Coefficients	t	P value	95.0% CI Lower Upper
	B	Std. Error	Beta			
Constant	79.6	22.5		3.536	0.001	34.7 - 124.5
Modified OSTES & TORP Index	-0.3	0.3	-0.137	-1.177	0.243	-0.9 - 0.2

F [1, 72] = 1.384, P = 0.243

Figure 8 depicts a scatter plot of the sub-scale of the Modified OSTES and TORP Index (i.e., Self-Efficacy Index) and the students' academic performance in a reading comprehension test. By examining the scatter plot (Figure 8), there is no clear linear or non-linear relationship between the two aforementioned variables. In

fact, using Ordinary Least (OLS) regression, F [1, 72] = 0.004, P = 0.948 shows that there is no linear relationship between Self-Efficacy Index and academic performance of students on reading comprehension, which is also illustrated in Table 9.

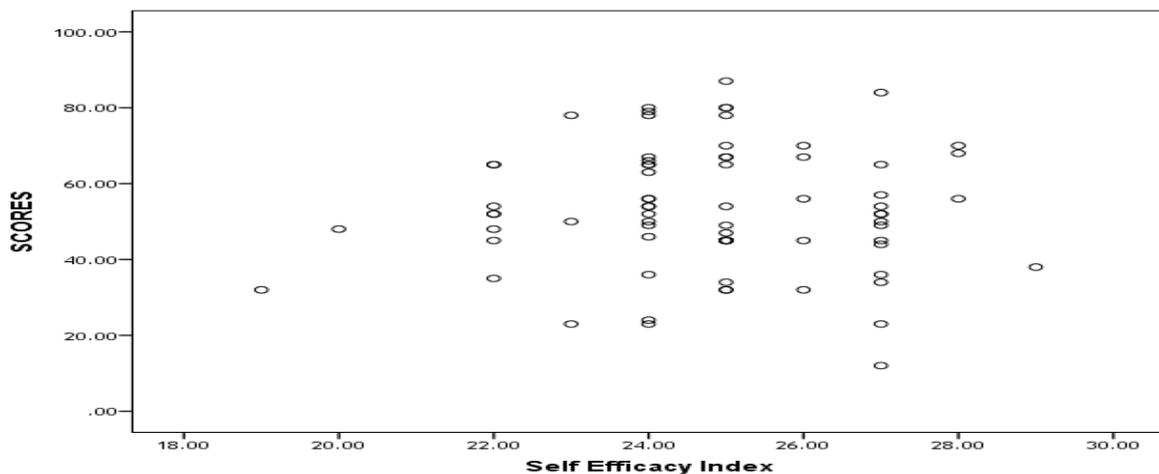


Figure 8. Scatter plot of Reading Comprehension Score and Perceived Self-Efficacy Index

Table 11 presents an Ordinary Least Square (OLS) regression testing whether there is a linear statistical relationship between Self-Efficacy Index and Reading Comprehension Scores of the sampled respondents. The findings indicated that there is no linear

relationship between the two previously mentioned variables ($P = 0.948$), suggesting that Perceived Self-Efficacy of the teacher does not influence the Reading Comprehension scores of students.

Table 11. Ordinary Least Square (OLS) regression of the Self-Efficacy Index and the Reading Comprehension Scores, n = 73

Model	Unstandardized Coefficients		Standardized Coefficients	t	P.	95.0% CI	
	B	Std. Error	Beta			Lower Bound	Upper Bound
Constant	51.5	25.18		2.05	0.044	1.35	101.73
Self Efficacy Index	0.07	1.01	0.008	0.07	0.948	-1.95	2.08

Figure 9 depicts a scatter plot of the reading comprehension scores of the students who are taught by the sampled teachers, disaggregated by the gender of the students. The average score for male students was $48.9\% \pm 11.7\%$ (95%CI: 44.8– 54.1%), compared to $56.6\% \pm 18.7\%$ (95%CI: 50.7-62.5%), with there

being a statistical difference between the two scores ($t = -2.417, P = 0.048$). It can be deduced from the findings that females are more inclined to score greater for reading comprehension, compared to their male counterparts in the fourth grade, for the sampled respondents.

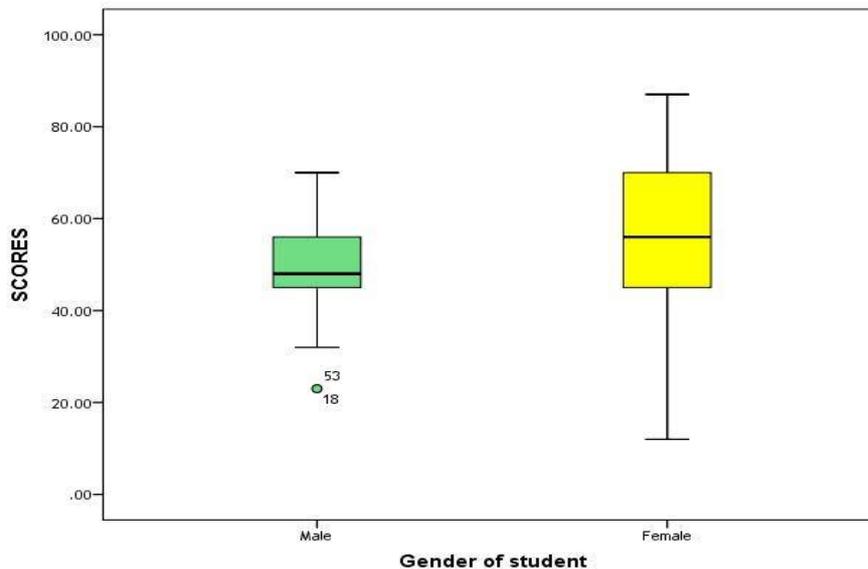


Figure 9. Scatter plot of reading comprehension scores by gender of students

DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

INTRODUCTION

There are many advantages to conducting research, especially quantitative research, and

one such is the benefit of guiding effective policy intervention programmes, as well as comprehensively understanding issues. For many decades in Jamaica, various stakeholders have been complaining about the state of the education system. Owing to the dimly low performance of Jamaican candidates at the

secondary level, especially at the Caribbean Examination Certificate courses in Mathematics and English Language (i.e. English A), the Ministry of Education implemented the inclusion of reading specialists and master teachers in Mathematics in high schools,

effective 1999. Despite the inclusion of reading specialists and master teachers in Mathematics in various secondary schools, in 2013, 57.7% of Jamaican candidates failed mathematics and 36.7% failed English A (see Table 12).

Table 12. Subjects subsidized by the Government and the Private Sector

	English	Mathematics	Info. Tech.	POA	POB
Sitting (2013)	26489	22870	11160	6141	8458
Passing (2013)	16870	9659	8843	4945	7254
% Passing (2013)	63.7	42.2	79.2	80.5	85.8
% Passing (2012)	52.0	37.5	80.5	60.3	87.1
% Passing (2011)	68.5	39.9	75.1	73.2	84.9
% Passing (2010)	70.8	44.7	81.4	67.9	84.3
% Passing (2009)	62.8	40.9	85.4	63.4	83.1

Source: Caribbean Examination Council, 2013, p. 5

The sub-standard performance of Jamaican candidates in the Caribbean Secondary Examination Certificate Examination (CSEC), as well as the Grade Six Achievement Test (GSAT), resulted in the introduction of a Grade Four Literacy and Numeracy Test by the Ministry of Education. In 2014, 58 out of every 100 Jamaican students in Grade Four mastered the required skills in Mathematics (see Table 13),

which score goes to the root of the low performance at the CSEC level. While the performance of Jamaican candidates in English A at the CSEC level is greater than that for Mathematics, there is a comprehension deficiency among pupils that can be traced to grade four (see Table 13) and lower. This is language deficiency which results in low performance in the GSAT examinations.

Table 13. Performance of Jamaican students on the Grade Four Numeracy and Literacy Test and GSAT, 2009-2014

Year	Mastery (in%)		GSAT (in%)	
	Numeracy	Literacy	Mathematics	Language
2009	45	70.1	53	57
2010	38	67	57	58
2011	46	71	62	57
2012	54	72	63	60
2013	55	76.3	61	62
2014	58	77.4	60	63

Source: Student Assessment Unit, MOE, Kingston, Jamaica, 2013, p. 6

The aforementioned percentages for selected courses at the CSEC and Numeracy at the Grade Four level explain the general disappointment of Jamaicans in the Educational System. An empirical cross-sectional national survey by Powell, Bourne & Waller (2007) found that education was listed among the top three

national problems faced by the society. Clearly, from the data shown in Tables 12 and 13, the academic problem regarding Jamaican students is encapsulated in their sub-standard skills in Numeracy and Literacy. Hence, this chapter compared findings in the literature and the current findings on the likely impact of the

teacher on Grade Four Students' Reading Comprehension Skills.

DISCUSSION

RESEARCH QUESTION ONE

To what extent do teachers in rural Jamaica perceive reader competencies to impact the performance of students in reading comprehension at the grade four level?

The poor performance of Jamaican students in Mathematics at the primary-to-secondary level is as a result of the competencies of the readers. Reading competencies are simply not only about literacy; they extend to what researchers call *context clues* within the text, used to decipher words through a process of sampling, inferring and predicting (Goodman, Watson & Burke, 1996). Such a premise offers a critical understanding, therefore, of the challenges of many students in writing Mathematics, simply because their reading competence is impaired. Allington & Johnston (2002) perceived that it is during the fourth grade that students' "...linguistic, cognitive and conceptual demands of reading increase somewhat dramatically; there is a heavier use of textbooks and an expectation of greater independence in using reading and writing as tools for learning" (p.15). This explanation offers a primary ingredient for the poor performance of Jamaican candidates in English A and more so in Mathematics, at the secondary level. Simply put, during the grade four year, many students do not answer literacy skills, especially those relating to reading comprehension, and this void therefore creates difficulty for them to understand many other courses such as Mathematics, History, Literature, Modern Language, and so forth.

Students who struggle with decoding may also have less working memory to focus on comprehension, lack sufficient vocabulary, and

possess only partial background knowledge to fully comprehend the text. They may also lack effective meta-cognitive strategies to monitor their comprehension (Perfetti, Marron, & Foltz, 1996), which explains the importance of early intervention to increase reading competencies. According to Smith & Johnson (1980):

The teacher is in all likelihood the one factor that makes the greatest difference in Students' Achievement. The critical factor is the ability of the teacher to diagnose students' needs, plan suitable activities, select proper materials, monitor progress and perform the many necessary teaching tasks skillfully while at the same time motivating students to learn and giving them the right amount and kind of personal support (p.279)

This justifies the importance of teachers' perspectives on understanding the reading competencies of students at the Grade Four Level.

In order to understand the value of the input of the sampled teachers to the discourse of reading comprehension of fourth graders in selected primary schools in Jamaica, some knowledge of the teachers' competence is also important. The mean age of the sampled respondents was 40.1±8.6 years old, with the average length of teaching experience being 13.6±7.9 years. The data also show that 2.7% (n=2) had certificates, 28.4% (n=21) had diplomas, 58.1% (n=43) had a bachelor degree and 10.8% (n=8) a Master of Science or Education degree. It follows within the context of this discussion that the sampled teachers are qualified to make a relatively good contribution to the discourse. The teachers herein indicated that the readers' competence has a powerful influence on the pupils' performance in reading comprehension at the Grade Four level, which is in keeping with the established literature (Catts & Kamhi, 1999; Perfetti, Marron, & Foltz, 1996; Roller, 1998; Smith & Johnson, 1980). It

is, therefore, within the context of the direct association between reading competence and reading comprehension that reading deficiencies should be addressed early, before mushrooming into failure at the secondary school level. Reading is critical to the future development of a child and the complexities of the matter are such that it is easy for the process to be retarded for the pupil (Bond, et al., 1984). So, it seems that Edward Seaga, former Prime Minister of Jamaica, may have been onto something when he opined that

The consequence of the excessive homework burden falls on the parent/caregiver who either responds by giving full assistance to the student, or fails to respond, leaving the student to take on the responsibility alone. Obviously, the degree of assistance received will markedly improve the success of the student. Although this is a desirable relationship between parents and children, the first part of the problem starts here. (Seaga, 2011)

The GSAT is not a once-a-year problem. It is an insidious problem for the great majority of parents and caregivers, almost daily. This agitation occurs particularly with those responsible for nine and 10-year-old students approaching the dreaded GSAT exam that is taken at age 11. The heavy burden of homework in preparation for GSAT is occupying from two or three hours. This is a prime grievance. (Seaga, 2011)

Critically examining the comments of Seaga, it can be deduced that problems associated with GSAT are in the volume of assignments, and by this, a greater matter is missed, that of reading comprehension and how these assignments seek to address such shortfall. Using the literacy results published by the Ministry of Education for fourth graders in private and public primary schools in Jamaica, there is undoubtedly a reading comprehension deficiency among these students. The teacher,

recognizing the gap between where the student presently is and where he/she ought to be, employs numerous pedagogical approaches and methods to address this, one way being by assignments. It is such reality that gives credence to Seaga's perspective about burdensome homework and multiplicity of assignments. The teacher hopes that parents will aid in the development of literacy of the students, by way of collaboratively completing the assignments. But a challenge arises because many parents do not see the objective of the teachers giving students assignments. Instead of parents aiding the child in doing the assignments, parents very often do all the work themselves.

RESEARCH QUESTION TWO

To what extent do teachers in rural Jamaica perceive social and cultural influences to impact the performance of students in reading comprehension at the grade four level?

Unlike the literature that examine socio-cultural factors to exclude those of the teacher, this research included those of the instructor and the general ones identified in an index by the Ohio State Teacher Efficacy Scale (OSTES) and Theoretical Orientation to reading Profile (TORP). Using a 5-point Likert Scale of 21 items, the sampled respondents (teachers) indicated that socio-cultural factors play a very strong role in changing the performance of students in reading comprehension at the Grade Four Level. In fact, on average, the mean perception of teachers on the value of *socio-cultural factors' influence on reading comprehension performance* was 21.7 ± 3.6 , with the maximum being 27. The socio-cultural factors included in the index were (a) parents' socioeconomic status, (b) parents' involvement, (c) culture (d) parents' educational level, (e) children's involvement, including temperament, and (f) teachers' involvement.

On examination of the literature, they were grouped within the following categories: Emotional, Environment (School and Home), Teacher, General Health of the Child, and Gender (Bond et al., 1984; Canadian Council on Learning, 2009; Cole, 2011; Evans, 1999; Geske and Ozola, 2009; Parkes, 2000; Smith & Johnson, 1980; Spache, 1973), which are generally found in the index used for this study. Unlike the literature, this study examined the demographic characteristics of the teachers in attempting to understand whether these social variables had anything to do with the reading comprehension of the students. The findings revealed that even Teachers' Educational Level, Teaching Experiences, and Gender had nothing to do with influencing students' performance in Reading Comprehension. Simply put, a teacher having a Master's degree, having taught for more than a decade, and being female, for example, have nothing to do with the performance of her students in reading comprehension. This begs the question, What then?

RESEARCH QUESTION THREE

Do teachers' senses of efficacy impact the performance of students in reading comprehension at the grade four level?

Again, among the factors that influence students' performance in reading comprehension is the teacher. In fact, Smith and Johnson (1980) opined that they are the most important factors in the reading comprehension of students. Based on the previously mentioned fact, the researcher examined the teachers' sense of efficacy and its likely role in influencing performance in reading comprehension. The average score for the self-efficacy sub-component of the index was 24.8 ± 1.9 , with the highest likely score being 29. The figures indicated that the majority of participants believed that teacher's self-efficacy greatly contributes to the overall performance

of students in reading comprehension. Such findings are only concurring with the literature explained by Bond et al. (1984) and Smith and Johnson (1980) that the teacher is an important component in the teaching-learning process of reading comprehension. Smith and Johnson (1980) explained that the teacher is responsible for managing the reading programme in such a way that the needs of each child are met. Harris and Smith (1980), on the other hand, postulated that the teacher's expertise does not only allow for planning a set of activities for the learner, but the teacher should acquire the ability to adjust activities to suit individual progress.

Outside of the involvement of a teacher in the teaching-learning process, it is well established in the literature that gender-disparity exists in the learning outcomes of pupils (Canadian Council on Learning, 2009; Evans, 1999; Geske & Ozola, 2009; Willis, 1989). Courses such as Physics, Mathematics, Actual Science, and Demography involves a high level of mathematical applications, which requires the same level of disciplines for those in reading, and comprehension. Researchers have empirically established that a positive attitude towards a course area is directly associated with better performance in the discipline than a negative attitude (Alrwais, 2000; Bassey, Isangedighi, Okon, & Idaka, 2010; Schenkel, 2009). It is this same interest or lack of interest in the subject area that accounts for differences in performance of the sexes. Males, for example, have different interests in some areas, especially because of gender roles. In fact, Evans (1999) opined that Jamaican males consistently under-perform in literacy, compared to their female counterparts, which report is supported by the current study. For this study, on average, male students obtained $48.9\% \pm 11.7\%$ (95%CI: 44.8– 54.1%), compared to $56.6\% \pm 18.7\%$ (95%CI: 50.7–62.5%), which is

8% lower reading comprehension scores for males than for females.

On examination of the mean reading comprehension score for male fourth graders, it was found that they were reading and comprehending below average and that this was totally as a result of their attitude towards literacy and, by extension, language. According to Glickman (2000), pupils with greater attitude towards Mathematics perform better than those with lower attitude towards the subject and have a lower anxiety towards the course. Glickman's perspective offers some insights into the reluctance of males to embrace literature and languages, and this equally offers an understanding of the gender disparity in performance in the present area of study, reading comprehension. The gender gap disparity in performance of pupils who sat the reading comprehension in this research owes part of its explanation to non-psychological conditions, which were offered by Willis (1989). Willis (1989) postulated that the gender disparity was owing to (a) Biological determinism: "Girls are just born to read better"; (b) Social determinism: "Girls are the ones who study languages;" and (c) Free choice: "Boys just do not choose reading" -which goes back to the issue of attitude towards the subject area.

LIMITATIONS

It is highly deceptive to conduct a research without providing limitations and likely biases for the reader's critical information (Babbie, 2007; Neuman, 2006; Silverman, 2005). Rosenberg (1985) and Kuhn (1996) argued that what makes a science is not the fact of it being natural; but it is based on the principles of the science that it upholds. Max Weber (1949, 1974, 1981) had postulated, years before the aforementioned writers, that the social science, particularly non-natural science research, is equally a science merely because of the

principles that are employed in conducting the discipline. Almost all the aforementioned researchers, including methodologists like Crotty (2005), Creswell (2003), Denzin & Lincoln (2000), Babbie (2007), and Neuman (2006), stated that the science of a research is the scientificity of its methodology. It follows, therefore, that any biases and limitations of a study must be made known to the reader(s) as these can reduce the scientificity of the study. As such, for this research, several limitations and biases were presented and must be disclosed, in order that the reader can understand the findings and how to interpret them. The limitations are

1. Non-generalizability of the findings-for this study the researchers used purposive sampling to ascertain the data and therefore this sample is not representative of the population.
2. Small sample size-the literature presented the argument that method (which includes sample selection) is critical to the scientificity of a research. For this study, a sample size was used obtained by a non-scientific procedure or a non-scientific basis, which limits generalizability and replicability. Such a fact could account for Type II errors. Type II errors are those which, when present, result in no statistical relationship in the data, when, in reality, there is one.
3. Selection bias-the topic and sample of study were chosen based solely on proximity to the researcher, the ease with which data could be collected, and the research preference for the school. In addition, the researcher chose to examine some variables and exclude others, instead of using the principle of parsimony. Although those biases and limitations reduce the scientificity of a research, Weber (1949, 1974, 1981) argued that some studies provide insights into a

phenomenon and not merely generalizability. Hence, while this study cannot and should not be interpreted as generalizable, it has provided invaluable information on a phenomenon that can be examined from a purely scientific level, if needs be.

RECOMMENDATIONS

Much has been said about reading comprehension as it relates to the teachers' perceptions, and much research has been conducted to identify the factors that affect low performance in reading comprehension. However, researchers have found that reader's competence has a positive influence on the pupil's performance in reading comprehension at the grade four level (Catts & Kamhi, 1999; Perfetti, Marron, & Foltz, 1996; Roller, 1998; Smith & Johnson, 1980). The researchers, therefore, suggest the following measures which, when implemented, will seek to treat reading deficiencies early. The recommendations are classified under three headings: The Ministry of Education, School, and Teachers.

THE MINISTRY OF EDUCATION

The research team recommends that the Ministry of Education:

1. Improve teacher training programmes to include innovative methods of content delivery (skills) in Reading Comprehension. This recommendation was made because the current study found that having qualification and years of experience in teaching do not influence students' performance in reading comprehension, and therefore speaks to the utilization of an approach that emphasizes application of methodologies over academic qualifications and experience. Hence, since demographic information about the teachers is not significant, there needs to be more time spent on ensuring that teachers use appropriate methods to efficiently and effectively deliver reading comprehension skills.
2. Provide literacy resource specialists in all schools to assist in sharing relevant methodologies for teacher and teaching effectiveness. This recommendation should not be costly for the Ministry of Education as it requires that Teacher Training Institutions implement this specialization in all their programmes, with emphasis in the area of languages. Outside of this approach, the Ministry of Education may train mastery literacy reading specialists who are assigned to all primary public schools, for the purpose of training other language teachers.
3. Establish suitably equipped libraries with adequate printed materials and relevant technologies, in all primary schools. Since boys do not readily attach themselves to reading, it would be of great assistance if books that trigger the ego of school-age boys are placed in these libraries. Such a collection might include automobile magazines, comics, and biographies of male iconic figures such as President Barack Obama, Bob Marley, Usain Bolt, et cetera. This would help in building some amount of interest towards reading among the boys.
4. Implement termly mandatory reading comprehension evaluations and use the results to make strategic innovations, including the training of specialists and teachers.
5. Modify the curriculum of grade one to be: Reading, Reading Comprehension, Numeracy and Resource Technology. The purpose of so doing would be to allow more time for reading and reading Comprehension, increasing the likelihood of drastically improving literacy.

6. Address the class size issue to make the teacher more effective in the teaching-learning process.

THE SCHOOLS (ADMINISTRATORS OF SCHOOLS)

The recommendations for schools and school administrations is that they should

1. Provide training for parents on how to assist children in reading comprehension. All stakeholders are important in students' education.
2. Provide technological resources for ease of lesson delivery, including videos and external reading projects with other schools. This is the age of technology and children gravitate towards contemporary media.
3. Conduct weekly evaluations of students' reading and reading comprehension levels to identify challenges and difficulties, and make the necessary adjustments to strategies and methods that will meet these needs.
4. Institute a monthly reading comprehension competition in which children are rewarded, to encourage in-class and general social reading among students.

TEACHERS

IT IS RECOMMENDED THAT TEACHERS SHOULD

1. Provide better literacy resources, making every classroom print-rich with reading materials matching the students' interests. Teachers need to provide self-made reading materials to meet the needs of their students. Getting the attention of students to learn is a vital aspect of the education process. On a monthly basis, the teachers could invite iconic personalities, including DJs, singers, athletes and media

specialists, into the classroom for reading exercises. Such guests would read for the children and have the children read for them.

2. Make a detailed termly progress report profile for each student, starting from grade one. This profile is to be made available to each class teacher, and the file should follow the child over his/her time at the primary level.
3. Conduct personal research to uncover and experiment on innovative methods of delivery that could be used with their students to ensure that learning takes place.

CONCLUSION

In 2007, Powell, Bourne & Waller conducted a probability sample survey in which a standardized questionnaire was used to collect data from 1,338 Jamaicans. It was found by this survey that education was listed as the third leading national problem. This fact explains why many stakeholders in the Ministry of Education have sought to implement various intervention programmes, in an attempt to reverse illiteracy and innumeracy among the general populace. Statistics on the GSAT examinations revealed that there has been a high level of failure in English (i.e. Language Arts and Communication Tasks) among Jamaican children, ages 11 and 12 years. This fact is of concern to stakeholders because of the importance of education (literacy and numeracy specifically) in human development.

Reading is the most important skill in the education process (International Reading Association, 2000), and with the high failure rate in English at the primary and secondary levels, an evaluation and examination of reading must be at the core of understanding this phenomenon. In keeping with the importance of reading in education, the Ministry of Education recently instituted

reading specialists at many secondary schools, in order to change the low reading levels of the students. Most of the studies done on reading have centered their attention on the students; but this research has approached the subject from a different vantage point, examining the instructors and how they perceived issues in reading and comprehension as critical to the teaching-learning process. This study revealed that there is a very strong perception among teachers that reading competence has a direct influence on reading comprehension among students, and that reading comprehension is equally impacted upon by self-efficacy and socio-cultural conditions.

Unlike what is offered in the literature as explanation of reading comprehension, this work added important information on the social factors of teachers and that they have no influence on the reading comprehension of the children. The social conditions of the teachers such as gender, qualification, area of specialization and length of service had nothing to do with the reading levels of students. Clearly, one would assume that the teacher's qualification, area of specialization, and length of service would have some influence on reading comprehension of students; this study found that this was not the case. However, the literature has already shown that female students, on average, are more likely reading at an earlier age than boys, which finding is supported by this study. While this study has clarified some widely held notions as to what might influence reading comprehension of children, many variables were omitted that could have provided more explanation of students' reading deficiencies. These will be forwarded in a section entitled Future Research.

SUGGESTIONS FOR FUTURE RESEARCH

The researchers are proposing the following:

1. The research should be conducted on a national level, using probability sampling technique to provide a reading truly representative of the population.
2. Include other variables such as parental involvement; skills set of teacher; level at which the student is performing; availability of resource materials; socio-economic status of parents.
3. A research should be done that coalesce the perspectives of teachers, students, and parents, in order to have a holistic understanding of the matter.
4. Use Experimental or Quasi design for the study in order to increase scientificity.

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