The Causes of school failure in the teaching and learning of literacy in the first cycle of primary school in Belize.

Research leader: Olda R. Hoare, Ph.D
Research counterpart: Lurleen Betson- Gamboa

Belize, 2013
1. **General Information:**
The Ministry of Education, Belize with the assistance of Dr. Olda R. Hoare (consultant) is responsible for the preparation of this research report.

2. **Title of Research Report:**
The causes of school failure in the teaching and learning of literacy in the first cycle of primary school in Belize.

3. **Timeline of the Research Project:**

4. **Principal Investigators of the Research Project:**
   - A. Olda R. Hoare, Ph.D. in Curriculum and Instruction with specialization in higher education administration and Research.
   - B. Counterpart: Mrs. Lurleen Betson- Gamboa

5. **Geographical Location of the Research Project: Belize.**
The Study involved teachers and students selected from schools across Belize from both rural and urban areas.

6. **Impact of the Project:**
This Study will impact the educational system in Belize generally, and specifically, provide evidence-based recommendations for the revision and/or development of policies to enhance the teaching and learning of literacy in Belize so as to reduce school failure at the primary school level. It will also impact the Teacher Education Programs offered by higher education institutions. It will also impact policies that are designed to encourage more parental involvement in literacy development of children in the primary school.

7. **Benefits of the Project: The Study**
   - a. provides a description of the situation in regards to the teaching and learning of literacy in the first cycle of primary school in Belize.
   - b. provides evidence-based recommendations for the revision/development of policies to enhance literacy in the first cycle of primary school and reduce school failure in Belize.
   - c. highlights the issue of school failure in Belize especially in relation to literacy failure in the first cycle of primary school
   - d. gives a “voice” to teachers and on the issue of literacy as a factor of school failure in Belize.
   - e. provides evidence-based recommendations for the revision of The Teacher Education Programs offered at higher education institutions in Belize

The Project will benefit:

- a. the educational system generally, and specifically:
- b. the children in the primary school;
- c. teachers;
- d. parents;
- e. school systems
- f. Ministry of Education, and
- g. the entire population of Belize.
Executive Summary

The purpose of this Study was to examine the teaching and learning of literacy (reading and writing) in the first cycle of primary school in Belize as a factor contributing to school failure in Belize. The study investigated how teacher characteristics (preparation, attitude towards, and perceptions of competencies in literacy) affect the teaching and learning of literacy in Belizean primary schools. Data were collected from teachers through questionnaires, interviews and through document review. The goal of this Study was to assist in the development of evidence-based policies to enhance the teaching and learning of literacy in the primary school so as to reduce school failure both in Belize and in Central America. The Study found that teachers need more opportunities for formal training in literacy, more professional development in literacy generally, and specifically in individualized instruction and assessment for children with literacy deficiencies. In addition, the Study found that there is a dire need for schools and Ministry of Education to develop mechanisms to involve parents in their children’s literacy development.
Introduction

Over the last two decades, countries in Central America and the Caribbean have invested heavily in basic education in order to improve access, quality, and equity in primary education (Comparative Hemispheric Report on policies and strategies to prevent school failure, 2005). They have embarked on major initiatives to strengthen their educational systems and reduce school failure in the region (Comparative Hemispheric Report on policies and strategies to prevent school failure, 2005). Among these initiatives are the strengthening of teacher education and training, involving parents, teachers and communities in the administration and development of schools, increasing financial resources for basic education, establishing standards for student learning, developing strong evaluation systems, and extending the coverage of pre-school education (Report of the Central Education Reform, 2007). In addition, major policies such as compulsory schooling, compulsory formal time requirement in school, pre-school education, teacher education and development, and others have been developed and implemented to strengthen educational systems (Educational Panorama of the Americas, 2002) and to reduce school failure in the region (Comparative Hemispheric Report on policies and strategies to prevent school failure, 2005). Even while major policies have been implemented to mitigate those factors related to school failure, the region continues to grapple with this phenomenon of school failure.

School failure is a broad concept which varies in definition from schools failing to provide adequate resources to promote student learning, students leaving school without the necessary competencies, to students failing to be promoted to another grade and eventually dropping out (Psacharopoulos, 2007). For the purpose of this research, school failure is used to “cover a range of phenomena which have in common, the consequence of adversely affecting students by exclusion (formerly known as attrition), repetition, problems of performance or even the problem of "extra-age", i.e. groups of children who have repeated one or more years of education primary and represent a particular challenge for the education system” (Leon, 2010, p. 7). Regardless of the specific definition, school failure, does not engender any positive associations. On the contrary, the implications of school failure are far and reaching especially considering that education is considered to be extremely necessary for individuals’ social and economic
advancement. As such, there is a need for governments in developing countries to examine the situation of school failure in order to develop policies to reduce school failure and to enhance opportunities for individuals to get a sound education. The aim of this study, therefore, is to address the phenomenon of school failure by investigating the teaching and learning of literacy in the Belizean primary school.

*School failure in Central America*

In Central America, while most of the countries have made great strides in providing almost universal access to primary school, there is still major work to do in retaining students in school to complete their education (Report of the Central Education Reform, 2007). Drop out and grade repetition continues to affect the education attainment of individuals. In fact, each year 500,000 or 5 out of 100 students leave school without having completed their studies and 8 of 100 students repeat a grade each year in primary and secondary schools. Repetition in the first grade of primary school is most worrying since 14 out of 100 students repeat the first grade each year (Report of the Central Education Reform, 2007). Repetition of the first grade is a serious issue as it is well established that early school failure negatively affects children’s academic, behavioral, and occupational outcomes (Stipek, 2001). Additionally, children who repeat the first grade are very likely to repeat again and eventually drop out of school. It is widely felt that repetition in grade one is related to the fact that only about 40% of children in Central America have access to pre-school which is considered to be an important foundation for successful transition to primary school (Report of the Central Education Reform, 2007). There is mounting evidence that early enriching educational experiences are directly related to later school achievement (Bowman, Donovan, & Burns, 2001). School failure characterized by drop out, repetition, exclusion, or over age, has serious consequences because the potential of individuals to improve their living conditions and to contribute to the development of their countries through education are then seriously impaired (Report of the Central Education Reform, 2007).

*School failure in Belize*

In Belize, access to, completion, and repetition in the Belizean primary school system continue to be a cause for much concern. In 2001, the primary net enrolment rate was
95% but has significantly decreased to 81.7% over the last decade. Gross enrolment rate has decreased to 95% over the years. These two figures suggest that there is an increasing number of school-aged children who are not enrolled in school. In relation to pre-school, the net enrolment of 30% is among the lowest in Central America and the Caribbean. However, there has been an upward trend in pre-school access over the last 10 years as the number of children attending pre-school increased from 3,542 in 2001-02 to 6,596 in 2009-2010. This increase is attributed to the government’s public policy of 2005 to increase access to pre-school education.

Completion rates (completion at the end of the primary cycle of 8 years) at the primary level in Belize are troubling. Primary school completion rates for the school year 2007-2008 was 45.7% for boys and 51.5% for girls and for 2009-2010, the completion rates for boys was 36.4% and 46.2% for girls. One major reason for the low completion rates is the high repetition in primary school. The average repetition rate is 7.1% which is higher than in other Caribbean countries. Repetition rates in the early grades of primary school are higher than other grades with repetition rate in infant One being the highest (13.3%). This reflects a disturbing trend in the entire Central American region where repetition rate in infant One averages 14%. Table 1 shows repetition for the first three years of primary school by district for the academic year 2009-2010.

Table 1

<table>
<thead>
<tr>
<th>District</th>
<th>Repetition Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Infant One</td>
</tr>
<tr>
<td>Cayo</td>
<td>9.5</td>
</tr>
<tr>
<td>Toledo</td>
<td>12.9</td>
</tr>
<tr>
<td>Belize</td>
<td>9.6</td>
</tr>
<tr>
<td>Corozal</td>
<td>14.8</td>
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<td>Orange Walk</td>
<td>13.9</td>
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<tr>
<td>Stann Creek</td>
<td>13.5</td>
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</table>

(data source: Project and Planning Unit, Ministry of Education)
The Education Sector Diagnosis Report, July 2011 reports that “the internal efficiency of the educational system in Belize is poor due to the high repetition rates at the primary level and high dropout rates at the secondary level” (p.10). This is despite the fact that the Government of Belize spends about 26% of its recurrent budget on education. As a proportion of GDP, education financing has remained constant at 6.5% for the last few years. Approximately 55% of the education expenditures go to primary education.

In addition, the Government of Belize has developed a strategy to educate and train teachers by 2015. Although there has been an increase in the teaching force, a large percentage of teachers remain untrained. Over the last four years, the percentage of untrained teachers has remained almost stable at 44% (Policy and Planning Unit, Ministry of Education, 2010). While research in Belize has not documented the impact of trained teachers on education standards or student outcomes, there is convincing evidence elsewhere which document a relationship between teacher development and student outcomes (Rowe & Rowe, 2002).

The problem

Factors related to school failure are often grouped into two categories: endogenous factors which are those related to the educational system, and the schools, and exogenous factors which are those directly related to families and their environment. Research on school failure usually falls into three categories: cognitive and non-cognitive characteristics of students, economic and political conditions in society, and socio-cultural and economic conditions of families (Lee & Burkham, 2003). Cognitive and non-cognitive characteristics of students include students’ academic performance, academic failure, low self-esteem, motivation, non-acceptance by peers and teachers, poor attendance, and school quality (Strom & Boster, 2008). Some studies have investigated the relationship between students’ attitudes towards school and school failure (Erktin, Okcabol, & Ural, 2010), others have investigated school quality and students drop out and repetition rates (Ehrenberg & Brewer, 1994) while others have studied students’ vulnerability to school failure because of their socio-economic status, aggressive behavior, and their weaknesses in reading and communication (Stormant et.al, 2003).
Studies have strongly suggested that students’ cognitive, affective, and behavioral outcomes of schooling are heavily influenced by the quality of teaching and learning of literacy and related communication skills (Rowe & Rowe, 2002). Other studies have documented the association between students’ reading and other academic achievements (Fraser, Walberg, Welch & Hattie, 1987) and have suggested that students’ who do poorly in reading/writing (literacy) are at a greater risk of school failure (Rowe & Rowe, 2002). These studies have identified the interrelatedness of school, students, and parental factors which affect reading achievement (Hattie, 1992; Walberg, 1986; Rowe & Rowe, 2002).

A review of the literature on student reading achievement identified four major factors which affect students reading achievement: (1) students’ cognitive, affective, and behavioral characteristics (2) socio cultural and home background factors (3) teacher and instructor characteristics and (4) school organizational and climate characteristics. Several studies have investigated these factors both in isolation and interrelated and have overwhelming concluded that teacher training and professional development in literacy (reading/writing,) teaching and learning positively impacts teacher competence and student performance in literacy (Rowe, 1999; Rowe & Rowe, 2002; Stormant et. al., 2003; Strickland et. al, 2003). It is imperative therefore, that teachers are prepared to deal with the differing needs, skill levels, and learning history of children in their early years of primary school (Kaiser & Hester, 1997). Other studies have found that students’ attitudes toward reading/writing and the opportunities to read both at home and school and their attentiveness and behavior in school affect their literacy development. Consequently, both teacher preparedness to teach literacy and students’ attitudes towards literacy must be investigated as factors which affect literacy development in the first cycle of primary school.

Rationale of the study

Considering the increasing importance of a strong education and the requisite of literacy for later success, it is paramount that governments in developing countries examine the teaching and learning of literacy in the primary school. Research has shown that students’ failure in literacy in the early years of primary school has a negative impact
on their future educational outcomes. It is important therefore, to understand how literacy is taught and learned in the early primary school cycle and how teacher preparation, and students’ attitude to literacy influence their literacy development. To successfully address the phenomenon of school failure as a result of literacy failure in the first cycle of primary school, it is necessary for the Ministry of Education, Belize, to examine the teaching and learning of literacy with the purpose of enhancing literacy. Critical in improving literacy is a discussion of the importance of teacher preparation in the teaching of literacy, teachers’ perceptions of their competencies to teach literacy, their attitudes toward teaching literacy, their attitudes to reading/writing, and students’ attitude to reading/writing. A study examining these issues in Belize is particularly relevant and timely since any improvement in literacy in Belize must take into account these variables. Although much research has been done on literacy in the early years of primary school and its relationship with school failure in developed countries, few studies have been conducted on school failure in developing countries. Even fewer studies have been conducted which examine how literacy is related to school failure in Belize.

Purpose of the Study

The purpose of this study, then, is to understand literacy in the first cycle of primary school in the developing country of Belize by examining how teacher characteristics (preparation, perceptions of competencies, and attitudes towards literacy) characteristics affect student literacy achievements. The general goals of this study are (1) to assist both national and regional policy makers in understanding literacy as a factor of school failure in primary school and to develop policies and implement programs to improve literacy and reduce school failure associated with literacy (2) to reduce school failure in Central America and the Dominican Republic. The objectives of the research project are to (1) investigate the teaching of reading and writing in the first three years of primary school where school failure is most prevalent and in the discipline which, according to many studies, influences students’ academic achievements in all other areas (2) contribute recommendations to improve the teaching and learning of reading/writing in the primary school (3) contribute to the body of literature in the teaching/learning of literacy in the Belizean primary school (4) assist in the development of policies to guide the
development of the literacy in the Belizean primary school. The study will address the following main research question: How do teacher characteristics affect students’ literacy development in the first cycle of primary school in Belize. The following specific questions will be addressed:

1. How are teachers prepared through their professional development to teach literacy in the first cycle of primary school?
2. What are teachers’ perceptions of their own competencies to teach reading and writing in the first cycle of primary school?
3. What are teachers’ perceptions of early literacy instruction?
4. What instructional methods are used in the teaching of reading/writing in the first cycle of primary school?
5. How do teachers; competencies affect children’s literacy development?

Definitions:

School Failure: range of phenomena which have in common, the consequence of adversely affecting students by exclusion (formerly known as attrition), repetition, problems of performance or even the problem of "extra-age", i.e. groups of children who have repeated one or more years of education primary and represent a particular challenge for the education system.

Teacher academic qualification: the academic level that a teacher has completed such as certificate, high school diploma, associate degree, bachelor’s degree, or higher.

Teacher professional qualification: refers to the level of professional degree in education such as certificate in teacher education. Associate degree in teacher education, or bachelor’s degree in teacher education.

Teacher characteristics: teachers’ competencies to teach literacy; attitude towards teaching literacy; attitude towards reading/writing; use and preference for literacy instructional methodologies.
Literature Review

The purpose of this study is to understand literacy in the first cycle of primary school in the developing country of Belize by examining how teacher characteristics and students’ characteristics affect students’ literacy achievements. The research questions are grounded in the literature of literacy in the first cycle of primary school and its relationship to school failure. The research questions are:

1. How are teachers prepared through their professional development to teach literacy in the first cycle of primary school?
2. What are teachers’ perceptions of their own competencies to teach reading and writing in the first cycle of primary school?
3. What are teachers’ perceptions of early literacy instruction?
4. What instructional methods are used in the teaching of reading/writing in the first cycle of primary school?
5. How do teachers’ competencies affect children’s literacy development?

Theoretical Framework

Over the last few decades, there has been growing research which documents the fact that schools (organization and instruction), family background, and parental support of their children’s education are all determinants in children’s academic success (Hess, Rotherham & Walsh, 2004). Factors related to students’ literacy achievement as per the literature are classified in four domains. These include students’ cognitive, affective, and behavioral characteristics, home sociocultural and background factors, teacher characteristics, and school organizational characteristics (Rowe, 1991). Exploratory studies in these domains both separately and collectively have shown an association between students’ literacy and other academic success (Rowe, 1995). Central to the thesis of this study is that students’ literacy achievements are influenced by the interrelations of these domain. However, this study will investigate only one of these domains: teacher
characteristics. Teacher characteristics include professional development, competencies in teaching literacy, and attitudes towards early literacy instruction.

Teacher Characteristics

Professional Development

Researchers of professional development have generally agreed that high quality professional development programs meet standards such as respect for teachers as lifelong learners; provide teachers the opportunity to steer their professional development, collaborate with other professionals, and learn while they practice; and are sustained over time (Correnti, 2007). In addition, professional development programs need to use effective instructional practices, be aligned with school curricula and assessments, and enhance teachers’ content and pedagogical knowledge (Corcoran et. al, 2003). There is significant evidence that there are positive effects of professional development on teachers’ attitudes and classroom practices (Hill, Holmes-Smith, & Rowe, 1993). Rowe (1987) investigated teachers trained in a literacy program and found that teachers reported that their participation in the program had improved their competences in literacy teaching skills. Likewise, Smylie (1988) found that professional development had positively affected teachers’ classroom practices. Furthermore, Rowe & Sykes (1989) found strong positive effects of professional development on teachers self-perceptions related to energy, enthusiasm and job satisfaction.

Consequently, policies which require professional development for teachers to increase their competencies (knowledge and skills) to teach literacy in order to reduce the severity and consequences of reading failure (Foorman et. al., 2006) have been developed to reduce school failure. These policies result from the consensus that although the causes of literacy failure are numerous and complex, one of the major factors is attributed to ineffective teaching (Strickland, Kamil, Walberg & Manning, 2003). The National Reading Panel (NRP, 2000) report concluded that professional development for teachers in literacy instruction has a positive effect on the improvement of literacy instruction and consequently, on the literacy achievement of students and noted that “if teachers would change their teaching practices after professional development, their students reading
achievement would increase. However, it has been recognized that teachers do not become excellent literacy teachers only upon graduation from a teacher preparation program or from in-service professional programs; rather, excellence in teaching literacy is an ongoing process (Strickland et. al, 2003). Education programs for teachers should provide the necessary background content and instructional methodologies to meet the instructional needs of children in order to help them achieve reading success (Baker, 2007).

**Literacy instruction**

Although there is much agreement that professional development affects teachers’ competencies to teach, there is less agreement on what constitutes effective literacy instruction and what teachers should know and be able to do in teaching literacy. In defining a framework for the development of professional development programs for the teaching of literacy one should consider evidence-based findings that explicate how children learn to read, factors that contribute to failure in literacy, and best practices in the teaching of literacy (Moat, 2009). Teachers must have a full understanding of literacy development in young children. Several key characteristics of early literacy development include a) the complexity of literacy which requires development of a variety of skills which develop independently with different support (Mason, Stewart, & Dunning, 1992). These skills include word reading, phonemic awareness, writing, reading vocabulary, and reading comprehension (Armbruster, Lehr, & Osborn, 2001; Dickenson & Tabor, 2001) b) the recognition that children obtain formal instruction at different points. Some children enter primary school after rich-kindergarten experiences while others lack these experiences. In addition, some children receive high levels of support in literacy from home. The implications of these situations are that children need to be assessed in their literacy achievement when they enter primary school (Tivnan & Hemphill, 2005). c) the effects of factors such as family income level, home language, and gender on children literacy development. Studies have shown that these factors are associated with children’s initial literacy level and their literacy development later (Burchinal et. al, 2002).
d) early exposure to literacy whether at the kindergarten level or at home has a direct and positive relation to later success in literacy.

Teacher preparation programs, therefore, must ensure that these characteristics are embedded in literacy courses. In addition, teachers must know what children need to learn to develop their literacy skills. Teacher training must include the importance of word recognition, phoneme-grapheme decoding and encoding, recognition of syllables and morphemes, reading accuracy and fluency, comprehension, writing, and background knowledge (Foorman et. al, 2006). It is also important for teachers to understand the importance of vocabulary development in both reading and writing (Moat, 2009). Evidence shows that there is a strong need for teachers to be able to assess and enhance phonemic awareness, teach letter and word recognition, teach phoneme-grapheme decoding, and teach fluent recognition of syllables and morphemes (Moats, 2009; Baker, 2007). It is also important for teachers to be able to successfully implement phonemic awareness development activities and be able to determine young children’s knowledge of specific grapheme-phoneme combinations (Baker, 2007). Furthermore, teachers need to understand the interdependence of reading instructional components (phonemes, graphemes, word recognition, etc.) and writing instruction (Vellutino et. al, 2007)

There is some agreement on the skills and knowledge foundations that children must have to develop their literacy skills, but there is less agreement on the instructional methodology that supports literacy development in children (Xue & Miesels, 2004). There are two models of instruction which have long been debated: the Phonics approach and the Whole Language Approach. Proponents of the Phonics approach are guided by the belief that learning to read as a two-stage process of learning to decode and learning the meaning of print(Gough & Tumner, 1986; Gough & Hoover, 1990). According to this belief, reading acquisition requires development of decoding skills such as phonemic awareness, word recognition, and phonics which are necessary for comprehension of text (Xue & Miesels, 2004). Therefore, decoding and word recognition should be taught before comprehension. The Phonics-based approach emphasizes direct instruction of skills (Stahl & Hayes, 1997) by the teacher; in other words, teachers who use this approach teach the skills in a structured manner and students respond by reading
decodable text (Xue & Miesels, 2004). The emphasis is on the output (decoding the text) rather than on the outcome (reading and comprehending).

The Whole Language approach emphasizes the use of rich literacy materials for reading and writing and the use of whole texts (Morrow, 1997). It is a child-centered learning methodology that emphasizes the need for children to proceed at their own pace in developing their reading and writing skills (Weaver, 1994). In this Approach, literacy learning is intended to be meaningful and functional and use authentic reading and writing tasks (Morrow, 1997). The proponents of this Approach advocate that the construction of meaning is the main goal from the onset of learning to read and the emphasis should be on the process of reading rather than on the tasks involved.

Studies on both sides of the debate have found that both approaches to teaching literacy are useful. For example, Adams (1990) and Ball & Blachman, (1991) found that phonics instruction leads to higher reading skills such as word recognition and spelling development. The National Reading Panel (2000) did a meta-analysis of studies investigating the phonics instruction approach in comparison to other approaches and found that the phonics approach was more effective in helping children to improve their decoding and word recognition skills particularly in kindergarten and first grade. However, the analysis also found that the phonics approach was not more effective for children beyond first grade. In support of the Whole Language Approach, (Morrow, Pressley, Smith & Smith, 1997; Morrow, 1990; Dahl & Freppon, 1995) found that children benefit from whole language experiences and their understanding of reading and writing is increased. In addition, some studies have shown that the Whole Language Approach has positive effects on students’ attitude toward reading (Gerla, 1996; Goatley & Raphael, 1992).

However, there are also studies which provide evidence that the two Approaches are not mutually exclusive and can complement each other (Baumann, et al, 2000). Furthermore, some studies have observed that the most effective literacy classes are those which use both approaches appropriately (Pressley, Rnkin & Yokoi, 1996). Overall, research suggests that to enhance early literacy development teachers should emphasize the holistic approach which emphasizes the process of reading and writing but ensure that children develop strong skills in phonics (Xue & Miesels, 2009).
Skills children need to know to develop their literacy

The National Reading Panel (2000) found that phonemic awareness is essential for later literacy development as it is a building block for word recognition and decoding which in turn is necessary to build reading comprehension skills and writing (Robert, 2005). Evidence shows that teaching students in early grades to understand sound-to-letter correspondence, providing direct instruction in phonics, fluency, sight-word identification, comprehension strategies, and vocabulary development increases the progress of children with low literacy rates (National Reading Panel, 2000). In general, children need to understand the language in which they will be reading and be able to decode the words automatically so that they can understand the text they are reading. However, understanding the written words requires knowledge of vocabulary, text structure, comprehension strategies, decoding knowledge, recognition of sight words, and fluency (Stahl & Yaden, 2004). Specifically, children need to understand and be given opportunity to practice each of the following concepts or associations: a) phonemes, b) morphemes, c) graphemes, d) syllables, e) word recognition etc. From very early, children must receive instruction on phonological awareness which aims to support children’s ability to blend and segment phonemes associated with graphemes (Moats, 2009). Decoding the written word which is a complex process involves phonological awareness, knowledge of sound-symbol and sound-spelling relationships, and knowledge of the form of writing (Stahl & Murray, 1998). This complex process is essential to the early processes of composing during early writing attempts (Stahl & Yaden, 2004).
Methodology

The Study employed a mix-method design which included a cross-sectional survey research design and a case study design to study school failure in the teaching and learning of literacy in the first cycle of primary school in Belize. Data were collected using questionnaires, interviews and document review. The survey research was conducted first to establish relationships between independent variable (teacher qualification) and teachers’ perceptions, attitudes, competencies, use and preference for instructional methodologies (dependent variables). After the analysis of this data, a case study design was used to further explore these relationships.

Cross-Sectional Survey Design

This study employed a cross-sectional survey research design to examine the relationships between teacher qualification (independent variable) and teachers’ perception of their own competencies to teach literacy; teachers’ attitude towards teaching literacy; teachers’ attitude towards literacy; teachers’ use and preference for literacy instructional methodologies (dependent variables). This design allowed for the examination of the strength and direction of these variables within the population of teachers in the first cycle of primary school in Belize. A cross-sectional research provided a better understanding of the relationships among the variables.

Case Study Design

This study was be guided by a qualitative paradigm. Creswell (1998) defines qualitative research as “an inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem” (p. 15). The intent of this research paradigm is to understand a specific situation, group or interaction (Locke, Spirduso, & Silverman, 1987). The specific situation investigated in this study was the teaching and learning of literacy in the first cycle of the Belizean primary school. To
understand this situation, a case study design was used. A case study design is used when the phenomenon that is being studied is a single entity and has a define boundaries and has a delimited nature (Merriam, 1998). This study was delimited to the teaching and learning of literacy in the first cycle of primary school and included teachers who teach literacy in the first cycle of primary school. Case studies use data collected through observations, interviews, and document analysis in order to provide “depth and breadth” of the case (Merriam, 1998, p. 134). For this study, data were collected from interviews and document review.

Selection of Participants
The population in this study consisted of teachers who teach in the first cycle of primary school in Belize. There are 3,063 primary school teachers in 295 primary schools in both rural (209) and urban (86) areas in Belize. Of the total number of primary school teachers, 1,117 or 37% teach in Infant 1, Infant 11 and Standard 1. Three hundred and thirty five teachers or 30% of the population of teachers in the first cycle was used in the study. A cluster sample was used to select teachers to participate in this study to ensure a proportional representation of teachers by district and rural and urban areas. Since data on individual school failure are non-existent in Belize, schools were chosen randomly. Table 2 shows the distribution of teachers by district and grade in the first cycle of primary school in Belize.

Of these 335 teachers, a purposeful sampling was used to select 16 teachers for interviews. This method of sampling was based on the assumption that the study selected those who can contribute the most to the study (Merriam, 1998). The teachers were chosen from both urban and rural schools in the Cayo and Belize Districts. Teachers selected for interviews met the criteria of having taught literacy for at least 3 years in the lower primary school and had completed some level of training in primary education. Teachers came from some of the same schools which participated in the study.
Table 2: distribution of teachers by district and grade in cycle One (Note: in many instances, there is multi-grade teaching (in about 90 of the 290 schools, so the same teacher counted in Infant 1 may be counted as an infant 11 teacher)

<table>
<thead>
<tr>
<th>District</th>
<th>Infant I</th>
<th>Infant II</th>
<th>Std I</th>
<th>Total</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belize</td>
<td>103</td>
<td>86</td>
<td>94</td>
<td>283</td>
<td>25</td>
</tr>
<tr>
<td>Cayo</td>
<td>99</td>
<td>92</td>
<td>104</td>
<td>295</td>
<td>26</td>
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<tr>
<td>Corozal</td>
<td>46</td>
<td>40</td>
<td>42</td>
<td>128</td>
<td>11</td>
</tr>
<tr>
<td>Orange Walk</td>
<td>53</td>
<td>41</td>
<td>46</td>
<td>140</td>
<td>13</td>
</tr>
<tr>
<td>Stann Creek</td>
<td>50</td>
<td>47</td>
<td>51</td>
<td>148</td>
<td>13</td>
</tr>
<tr>
<td>Toledo</td>
<td>53</td>
<td>26</td>
<td>44</td>
<td>123</td>
<td>11</td>
</tr>
<tr>
<td>Sub-Totals:</td>
<td>404</td>
<td>332</td>
<td>381</td>
<td>1117</td>
<td>100%</td>
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<tr>
<td>% by Grade</td>
<td>36%</td>
<td>30%</td>
<td>34%</td>
<td>100%</td>
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Table 3: distribution of teachers by grade and locale (urban or rural)

<table>
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<tr>
<th></th>
<th>URBAN</th>
<th>URBAN</th>
<th>URBAN</th>
<th>RURAL</th>
<th>RURAL</th>
<th>RURAL</th>
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<tbody>
<tr>
<td></td>
<td>Infant I</td>
<td>Infant II</td>
<td>Std I</td>
<td>Tot. Urban by District</td>
<td>% Urban per District</td>
<td>Infant I</td>
</tr>
<tr>
<td>Belize</td>
<td>72</td>
<td>66</td>
<td>69</td>
<td>207</td>
<td>73%</td>
<td>31</td>
</tr>
<tr>
<td>Cayo</td>
<td>39</td>
<td>40</td>
<td>42</td>
<td>121</td>
<td>41%</td>
<td>60</td>
</tr>
<tr>
<td>Corozal</td>
<td>10</td>
<td>11</td>
<td>8</td>
<td>29</td>
<td>23%</td>
<td>36</td>
</tr>
<tr>
<td>Orange Walk</td>
<td>17</td>
<td>14</td>
<td>15</td>
<td>46</td>
<td>33%</td>
<td>36</td>
</tr>
<tr>
<td>Stann Creek</td>
<td>11</td>
<td>12</td>
<td>11</td>
<td>34</td>
<td>23%</td>
<td>39</td>
</tr>
<tr>
<td>Toledo</td>
<td>5</td>
<td>6</td>
<td>4</td>
<td>15</td>
<td>12%</td>
<td>48</td>
</tr>
<tr>
<td>Sub-Totals:</td>
<td>154</td>
<td>149</td>
<td>149</td>
<td>452</td>
<td></td>
<td>250</td>
</tr>
</tbody>
</table>
Table 4: sampling of teachers by district and locale (urban and rural)

<table>
<thead>
<tr>
<th></th>
<th>Sample by District</th>
<th>Urban</th>
<th>% Urban per District</th>
<th>Rural</th>
<th>% rural per District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belize</td>
<td>85</td>
<td>62</td>
<td>73%</td>
<td>23</td>
<td>27%</td>
</tr>
<tr>
<td>Cayo</td>
<td>89</td>
<td>36</td>
<td>41%</td>
<td>52</td>
<td>59%</td>
</tr>
<tr>
<td>Corozal</td>
<td>38</td>
<td>9</td>
<td>23%</td>
<td>30</td>
<td>77%</td>
</tr>
<tr>
<td>Orange Walk</td>
<td>42</td>
<td>14</td>
<td>33%</td>
<td>28</td>
<td>67%</td>
</tr>
<tr>
<td>Stann Creek</td>
<td>44</td>
<td>10</td>
<td>23%</td>
<td>34</td>
<td>77%</td>
</tr>
<tr>
<td>Toledo</td>
<td>37</td>
<td>5</td>
<td>12%</td>
<td>32</td>
<td>88%</td>
</tr>
<tr>
<td>Total:</td>
<td>335</td>
<td>136</td>
<td>200</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data Collection

Questionnaire

A self-administered questionnaire was used to elicit responses from teachers on their perspectives of their teacher preparation, their own competencies in teaching literacy, their attitudes towards teaching literacy, their use and preference towards using literacy instructional methodologies; and their attitudes towards reading and writing in the first cycle of primary school. The questionnaire will include both close-ended questions using a Likert scale and open-ended questions for participants to provide additional information. The questionnaire elicited information on:

a) demographic data;

b) teachers’ perceptions of their teacher preparation program;
c) teachers perceptions of their own competencies to teach literacy;

d) attitudes towards teaching literacy;

e) attitudes towards literacy;

f) perceptions on the difficulties children face in literacy;

g) use and preference for a specific instructional methodology

**Interviews**

Interviews are used to understand a participant’s experiences, perspectives, and beliefs (Patton, 1990). Interviews are described as “conversations in which the researcher gently guides a conversational partner in an extended discussion” (Rubin and Rubin, 2005, p. 4). This study used interviews to elicit perspectives of teachers from schools participating in the study. A purposeful sampling was used to select the participants. The participants included 16 teachers from rural and urban schools and who are currently teaching in the first cycle of primary school. The purpose of the interviews were to elicit teachers’ perspectives of their preparatory programs, attitudes towards literacy, their own competencies in teaching literacy, and areas in literacy in which children have difficulty.

Prior to interviews, letters of invitations were sent to the selected participants. Each participant in the study was asked to sign an informed consent form. Interviews were formal and took place at the participating schools where the teachers work. Interviews were recorded with the consent of the participants.

**Document Review**

Teacher Education Curricula offered at both the associate degree and bachelor’s degree levels were reviewed to examine the content of Literacy courses offered.

**Data Analysis**

**Questionnaire**

Data were entered into an electronic database file which was then be imported into SPSS. SPSS was used to conduct univariate analysis. Univariate analysis was done to determine frequency distributions and the construction of frequency tables for all descriptive data, including demographic information. Descriptive statistical analysis that was reported
include basic statistics on mean, standard deviations, frequencies, variance, and normality/skewedness.

Bivariate statistical analysis was done using Pearson’s product-moment correlations to identify relationships between teacher qualifications and their perceptions of their competencies to teach literacy; their attitudes towards teaching literacy, their attitudes towards reading and writing; and their use and preference for literacy instructional methodology/ies.

*Interviews*

Data analysis and data collection are iterative and dynamic in qualitative research (Merriam, 1988); therefore, data analysis commenced as soon as the first interview has been completed and transcribed. The first step in the data analysis was to read each transcript and make notes in the margins to record any observations, ideas as well as words that appear often in the data (Merriam, 1998). The next step was to divide the data into meaningful unit which may be “meaningful or potentially meaningful segment of data” (Merriam, 1998, p. 179). This unit of data was be the “smallest piece of information about something that can stand by itself” (Guba and Lincoln, 1985, p. 345). After the data had been separated into units, each unit was labeled with a descriptive code based on the key words repeated often or that summarize the meaning of the text. A list of codes was then generated. The next data set was analyzed in the same way. After the second analysis had been concluded, the two list of codes was be merged to analyze for recurring patterns. Pattern coding reduces the data into smaller units and helps to focus future data collection (Miles & Huberman, 1994). These patterns formed the initial themes of the study. The efficacy of the emerging themes was be tested by comparing them to the broad heading of teacher attitudes, teacher competencies, and children’s difficulties with literacy. After all the data had been collected, the themes were modified accordingly.
Findings and Discussion

Survey Findings:
Data were collected for this study from a convenience sample of primary school teachers teaching at the first level of elementary education in urban and rural schools in Belize. The sample was taken from the population of teachers teaching in the first cycle of elementary school (N= 1,117). The final sample of 335 represented 30% of the total number of teachers in the first cycle of primary school. Of the 335 surveys distributed, 274 were completed for a response rate of 82%. The survey was carried out in primary schools located in the six districts of Belize in both urban and rural areas.

Univariate Analyses Results

Population Demographics. Univariate analyses were conducted on section 1 of the questionnaire. Section 1 questions collected demographic data on the participants who filled out the questionnaire. The age range for data collection for this study was from 19 to 78 years with 70.7% (N=176) of the respondents being 40 years or younger. Participants in this study were mostly female 93.1% (N=244). The participants taught in the following levels: Infant 1 (36.3%, N=91), Infant 2 (30.3%, N=76), and Standard 1 (30.7%, N=84). Participants taught in schools that had student populations ranging from 101 to 1010 students and with an average student population of 562 and average class size of 26 students. Majority (70.5%) of teachers had been teaching in the grade level for less than five years. Table 1 provides complete demographic characteristics of the participants.
Table 1

*Participants' Demographic Characteristics*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender (N=262)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>244</td>
<td>93.1</td>
</tr>
<tr>
<td>Male</td>
<td>18</td>
<td>6.9</td>
</tr>
<tr>
<td><strong>Age (N=249)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19-30</td>
<td>98</td>
<td>39.4</td>
</tr>
<tr>
<td>31-40</td>
<td>78</td>
<td>31.3</td>
</tr>
<tr>
<td>41-50</td>
<td>51</td>
<td>20.5</td>
</tr>
<tr>
<td>51-78</td>
<td>23</td>
<td>9.2</td>
</tr>
<tr>
<td><strong>School District (N=273)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cayo</td>
<td>86</td>
<td>31.5</td>
</tr>
<tr>
<td>Belize</td>
<td>75</td>
<td>27.5</td>
</tr>
<tr>
<td>Orange Walk</td>
<td>42</td>
<td>15.4</td>
</tr>
<tr>
<td>Corozal</td>
<td>27</td>
<td>9.9</td>
</tr>
<tr>
<td>Stann Creek</td>
<td>22</td>
<td>8.1</td>
</tr>
<tr>
<td>Toledo</td>
<td>21</td>
<td>7.7</td>
</tr>
<tr>
<td><strong>Location (N=219)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>110</td>
<td>50.2</td>
</tr>
<tr>
<td>Urban</td>
<td>109</td>
<td>49.8</td>
</tr>
<tr>
<td><strong>Total Years of Teaching Experience (N=263)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 1 year</td>
<td>17</td>
<td>6.5</td>
</tr>
<tr>
<td>1-5 years</td>
<td>68</td>
<td>25.9</td>
</tr>
<tr>
<td>6-10 years</td>
<td>60</td>
<td>22.8</td>
</tr>
<tr>
<td>11-15 years</td>
<td>30</td>
<td>11.4</td>
</tr>
<tr>
<td>16-20 years</td>
<td>33</td>
<td>12.5</td>
</tr>
<tr>
<td>&gt; 20 years</td>
<td>55</td>
<td>20.9</td>
</tr>
</tbody>
</table>
Normality. This section provides the statistics used to assess normality of the data collected on the constructs of interest. Means, standard deviation, skewness and kurtosis values were used to assess distribution of data.

The construct *Perception of Competences* consisted of four items and had a mean of 1.99 (SD 0.64); the construct *Usage of instructional Methodology* consisted of four items and had a mean of 2.18 (SD 0.54); and the construct *Perception of Literacy* consisted of ten items and had a mean of 3.81 (SD 0.53). The Skewness values for the construct *Perception of Competences* was -0.30; for the construct *Usage of instructional Methodology* was -0.34; and the construct *Perception of Literacy* was -1.46. The Kurtosis values for the construct *Perception of Competences* was -0.45; for the construct *Usage of instructional Methodology* was -0.69; and the construct *Perception of Literacy* was 5.39. Judgments for the construct *Perception of Competences* were made on a 5-point scale (1 = Not at all, 5 = A great deal). Judgments for the construct *Usage of instructional Methodology* were made on a 3-point scale (1 = whole language, 4 = combination). Judgments for the construct *Perception of Literacy* were made on a 5-point scale (1 = strongly agree, 4 = strongly disagree).

Research Question Results

*Research Question 1: How are teachers prepared through their professional development to teach literacy in the first cycle of primary school?*

Majority of respondents, 83.4% (N=265), reported having at least a high-school diploma or an associate degree (See Table 2) with 79.2% (N=260) of respondents reporting that they had professional training in education. Of those reporting having professional training in education, 78.2% (N=203) reported having either a certificate or associate degree in primary education (See Table 3). Of the persons reporting professional training in education, 54.5% (N=213) reported having taken one to three courses in literacy during their training program (See Table 4). This is in conformity with the number of courses related to literacy that are required of students in the Associate and Degree and Certificate in Primary Education Programs. At the Bachelor’s level, students are required to take six literacy-related courses if they have not taken the three courses at the Associate level.
A majority, 85.0% (N=226), felt that their professional training prepared them to teach literacy/language at the primary school level. Table five shows that 37.2% (N=223) reported taking three or more professional development (PD) sessions that included the teaching of Literacy in the past year and 63.6% (N=242) (See Table 6) reported taking only one to six professional development sessions in their entire teaching career, even though 44.8% reported having more than ten years teaching experience. This finding shows that professional development sessions while they may be available are not being accessed regularly.

Majority (68.5%) of teachers reported that they did have a mentor to guide them in teaching literacy. Of those who reported having a mentor, majority of respondents (93.9%) reported being satisfied with support provided by their mentor and rated the teaching resources provided as good/excellent (70.3%). Majority of respondents were either confident (65.3%) or (13.7%) very confident in teaching literacy to students. Additional frequency results are provided in Tables 2-6.

Table 2

*Participants’ Academic Qualification*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>High school diploma</td>
<td>69</td>
<td>26.0</td>
<td>26.0</td>
</tr>
<tr>
<td>Associate degree</td>
<td>152</td>
<td>57.4</td>
<td>83.4</td>
</tr>
<tr>
<td>Bachelor degree</td>
<td>29</td>
<td>10.9</td>
<td>94.3</td>
</tr>
<tr>
<td>Master's degree</td>
<td>3</td>
<td>1.1</td>
<td>95.5</td>
</tr>
<tr>
<td>Other</td>
<td>12</td>
<td>4.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>265</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Table 3

*Participants’ Professional Qualification*

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate in Primary Education</td>
<td>51</td>
<td>25.1</td>
<td>25.1</td>
</tr>
<tr>
<td>Associate degree in Primary Education</td>
<td>82</td>
<td>40.4</td>
<td>65.5</td>
</tr>
<tr>
<td>Bachelor degree with Certificate in Primary Education</td>
<td>9</td>
<td>4.4</td>
<td>70.0</td>
</tr>
<tr>
<td>Bachelor degree in Primary Education</td>
<td>28</td>
<td>13.8</td>
<td>83.7</td>
</tr>
<tr>
<td>Other</td>
<td>33</td>
<td>16.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>203</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 4

*Literacy Sessions taken in Professional Education Training Program*

<table>
<thead>
<tr>
<th>Session</th>
<th>Frequency</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>One to three</td>
<td>116</td>
<td>54.5</td>
<td>54.5</td>
</tr>
<tr>
<td>Four to six</td>
<td>57</td>
<td>26.8</td>
<td>81.2</td>
</tr>
<tr>
<td>Seven to ten</td>
<td>23</td>
<td>10.8</td>
<td>92.0</td>
</tr>
<tr>
<td>More than ten</td>
<td>17</td>
<td>8.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>213</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Table 5

*Professional Development courses that included teaching literacy in the past year*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>77</td>
<td>34.5</td>
<td>34.5</td>
</tr>
<tr>
<td>Two</td>
<td>63</td>
<td>28.3</td>
<td>62.8</td>
</tr>
<tr>
<td>Three</td>
<td>25</td>
<td>11.2</td>
<td>74.0</td>
</tr>
<tr>
<td>Four</td>
<td>13</td>
<td>5.8</td>
<td>79.8</td>
</tr>
<tr>
<td>More than four</td>
<td>45</td>
<td>20.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>223</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 6

*Professional Development courses that included teaching literacy in entire career*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>One to three</td>
<td>88</td>
<td>36.4</td>
<td>36.4</td>
</tr>
<tr>
<td>Four to six</td>
<td>66</td>
<td>27.3</td>
<td>63.6</td>
</tr>
<tr>
<td>Seven to nine</td>
<td>21</td>
<td>8.7</td>
<td>72.3</td>
</tr>
<tr>
<td>Ten to twelve</td>
<td>67</td>
<td>27.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>242</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Research Question 2: What are teachers’ perceptions of their own competencies to teach reading and writing in the first cycle of primary school?

Table 7

Confidence in Teaching Literacy to Students

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not confident at all</td>
<td>1</td>
<td>.4</td>
<td>.4</td>
</tr>
<tr>
<td>Not very confident</td>
<td>56</td>
<td>20.7</td>
<td>21.0</td>
</tr>
<tr>
<td>Confident</td>
<td>177</td>
<td>65.3</td>
<td>86.3</td>
</tr>
<tr>
<td>Very confident</td>
<td>37</td>
<td>13.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>271</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table shows that a majority of respondents were either confident (65.3%) or (13.7%) very confident in teaching literacy to students. However, 21% of teachers are not confident in teaching literacy. This number is worrisome because it represents a large population of teachers who need additional assistance or training in the teaching of literacy but are currently in the system teaching with the little experience or knowledge they may have.

A Pearson product-moment correlation coefficient was computed to assess the relationship between the teachers’ expressed confidence to teaching reading and writing in the first cycle of primary school and their perception of their competencies to utilize a variety of teaching strategies. There was a positive correlation between the two variables, \( r = 0.495, \) \( n = 269, \) \( p = 0.05. \) Increases in teacher’s expressed confidence to teaching reading and writing in the first cycle of primary school were positively correlated with increases in their perception of their competencies to utilize a variety of teaching strategies. In other words, the more confident teachers felt in teaching literacy, the more they felt they could successfully use a variety of teaching strategies.
A Pearson product-moment correlation coefficient was computed to assess the relationship between the teachers’ expressed confidence to teaching reading and how many PD sessions (workshops and seminars) that included the teaching of literacy attended during the past academic year; and during their entire teaching career. There was no statistically significant relationship between teachers’ expressed confidence to teaching reading and how many PD sessions taken during the past academic year. However, there was a positive correlation between the teachers’ expressed confidence to teaching reading and how many PD sessions during their entire teaching career, \( r = 0.195, n = 222, p = 0.01 \). Increases in teacher’s expressed confidence to teaching reading and writing in the first cycle of primary school were positively correlated with increases in the number of PD sessions (workshops and seminars) that included the teaching of literacy attended during their entire teaching career. This finding is consistent with the literature related to professional development for literacy teachers. The National Reading Panel (NRP, 2000) report concluded that professional development for teachers in literacy instruction has a positive effect on the improvement of literacy instruction and consequently, on the literacy achievement of students. However, professional development should be an ongoing process.
Research Question 3: What are teacher’ perceptions of early literacy instruction?

The tables below show the results of individual questions used in this Research Question:

Table 8

Utilization of a Variety of Instructional Strategies

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Little Bit</td>
<td>9</td>
<td>3.3</td>
<td>3.3</td>
</tr>
<tr>
<td>Somewhat</td>
<td>47</td>
<td>17.3</td>
<td>20.7</td>
</tr>
<tr>
<td>Quite a Bit</td>
<td>119</td>
<td>43.9</td>
<td>64.6</td>
</tr>
<tr>
<td>A Great Deal</td>
<td>96</td>
<td>35.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>271</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 9

Utilization of a Variety of Assessment Strategies

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Little Bit</td>
<td>17</td>
<td>6.3</td>
<td>6.3</td>
</tr>
<tr>
<td>Somewhat</td>
<td>61</td>
<td>22.5</td>
<td>28.8</td>
</tr>
<tr>
<td>Quite a Bit</td>
<td>115</td>
<td>42.4</td>
<td>71.2</td>
</tr>
<tr>
<td>A Great Deal</td>
<td>78</td>
<td>28.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>271</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Table 10

*Utilization of an Alternative Explanatory Model*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Little Bit</td>
<td>14</td>
<td>5.2</td>
<td>5.2</td>
</tr>
<tr>
<td>Somewhat</td>
<td>37</td>
<td>13.8</td>
<td>19.0</td>
</tr>
<tr>
<td>Quite a Bit</td>
<td>149</td>
<td>55.4</td>
<td>74.3</td>
</tr>
<tr>
<td>A Great Deal</td>
<td>69</td>
<td>25.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>269</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 11 *Adjustment of Instructional Strategies*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Little Bit</td>
<td>12</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>Somewhat</td>
<td>58</td>
<td>21.6</td>
<td>26.1</td>
</tr>
<tr>
<td>Quite a Bit</td>
<td>121</td>
<td>45.1</td>
<td>71.3</td>
</tr>
<tr>
<td>A Great Deal</td>
<td>77</td>
<td>28.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>268</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

A Pearson product-moment correlation coefficient was computed to assess the relationship between the teacher’s professional training in education and their perception of literacy instruction. Teachers’ perception of literacy instruction was estimated by combining the scores to responses to teachers’ estimation of their utilization of a variety of instructional strategies; their utilization of a variety of assessment strategies; their utilization of an alternative explanatory model; and their adjustment of instructional strategies utilization. There was no correlation between the two variables, \( r = -0.075, n = 168, p = 0.337 \). Increases in teacher’s professional training in education were not correlated with increases in their perception of literacy instruction.
Research Question 4: What instructional methods are used in the teaching of reading/writing in the first cycle of primary school?

A frequency analysis was conducted on the variables that measured instructional methods used by teachers. The results are provided in the following Tables 12-15.

Table 12
Type of Instruction Encouraged by School

<table>
<thead>
<tr>
<th>Method of Instruction</th>
<th>Frequency</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole Language</td>
<td>107</td>
<td>42.5</td>
<td>42.5</td>
</tr>
<tr>
<td>Phonics-based</td>
<td>19</td>
<td>7.5</td>
<td>50.0</td>
</tr>
<tr>
<td>A combination</td>
<td>126</td>
<td>50.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>252</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 13
Method of Literacy Instruction Used for Teaching Remedial Readers

<table>
<thead>
<tr>
<th>Method of Instruction</th>
<th>Frequency</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole Language</td>
<td>38</td>
<td>14.4</td>
<td>14.4</td>
</tr>
<tr>
<td>Phonics-based</td>
<td>116</td>
<td>44.1</td>
<td>58.6</td>
</tr>
<tr>
<td>A combination</td>
<td>109</td>
<td>41.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>263</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Table 14

*Method of Literacy Instruction Used for Teaching Beginning Readers*

<table>
<thead>
<tr>
<th>Method</th>
<th>Frequency</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole Language</td>
<td>26</td>
<td>9.9</td>
<td>9.9</td>
</tr>
<tr>
<td>Phonics-based</td>
<td>169</td>
<td>64.5</td>
<td>74.4</td>
</tr>
<tr>
<td>A combination</td>
<td>67</td>
<td>25.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>262</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 15

*Literacy instructional method predominantly used by teachers*

<table>
<thead>
<tr>
<th>Method</th>
<th>Frequency</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole Language</td>
<td>78</td>
<td>29.8</td>
<td>29.8</td>
</tr>
<tr>
<td>Phonics-based</td>
<td>55</td>
<td>21.0</td>
<td>50.8</td>
</tr>
<tr>
<td>A combination</td>
<td>129</td>
<td>49.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>262</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

A Pearson product-moment correlation coefficient was computed to assess the relationship between the teacher’s professional training in education and type of instruction encouraged by school; method of literacy instruction used for teaching remedial readers; method of literacy instruction used for teaching beginning readers; and reading instruction predominantly used. There was no correlation between the teacher’s professional training in education and method of literacy instruction used for teaching remedial readers; method of literacy instruction used for teaching beginning readers; and reading instruction predominantly used. Increases in teacher’s professional training level in education were not correlated with increases in method of literacy instruction used for teaching remedial readers; method of literacy instruction used for teaching beginning
readers; and reading instruction predominantly used. This finding suggests that the teacher education program does not differentiate its instruction to cover these special cases in literacy instruction but rather offer general strategies to teach literacy. However, there was a positive correlation between the teacher’s professional training in education and type of instruction encouraged by school, \( r = 0.201, n = 160, p = 0.05 \) (See Table 16). Increases in teacher’s professional training in education were positively correlated with the usage of both phonics and whole language approaches to literacy. This finding suggests that teachers with bachelor’s degrees who use both approaches to literacy instruction have an influence in the type of literacy instruction encouraged by the school.

Table 16  
*Correlation Matrix for Instructional Methods and Teacher’s Professional Training in Education*

<table>
<thead>
<tr>
<th>Method of Literacy Instruction</th>
<th>Teacher’s Academic Qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encouraged by School</td>
<td>Pearson Correlation</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>Method of Literacy Instruction</td>
<td></td>
</tr>
<tr>
<td>Used for Teaching Remedial</td>
<td></td>
</tr>
<tr>
<td>Readers</td>
<td></td>
</tr>
<tr>
<td>Method of Literacy Instruction</td>
<td></td>
</tr>
<tr>
<td>Used for Teaching Beginning</td>
<td></td>
</tr>
<tr>
<td>Readers</td>
<td></td>
</tr>
<tr>
<td>Reading Instruction</td>
<td></td>
</tr>
<tr>
<td>Predominantly Used</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Correlation is significant at the .05 level (2-tailed).
A Pearson product-moment correlation coefficient was computed to assess the relationship between the teacher’s academic qualification and type of instruction encouraged by school; method of literacy instruction used for teaching remedial readers; method of literacy instruction used for teaching beginning readers; and reading instruction predominantly used. There was no correlation between the teacher’s academic qualification and type of instruction encouraged by school; or reading instruction predominantly used. However, there was a negative correlation between the teacher’s professional training in education and the type of method of literacy instruction used for teaching remedial readers, \( r = -0.134, n = 249, p = 0.05; \) or method of literacy instruction used for teaching beginning readers, \( r = -0.157, n = 248, p = 0.05 \) (See Table 17). Increases in teachers’ academic qualification were negatively correlated with increases in the method of literacy instruction used for teaching remedial readers. Increases in teacher’s academic qualification were negatively correlated with increases in the method of literacy instruction used for teaching beginning readers.

Table 17

| Correlation Matrix for Instructional Methods and Teacher’s Academic Qualification |
|----------------------------------|----------------------------------|
| Teacher’s Academic Qualification | 
| Type of Instruction Encouraged by School | Pearson Correlation | -0.026 |
| | Sig. (2-tailed) | 0.694 |
| | N | 239 |
| Method of Literacy Instruction Used for Teaching Remedial Readers | -0.134* |
| Method of Literacy Instruction Used for Teaching Beginning Readers | -0.157* |
| Reading Instruction Predominantly Used | -0.081 |

* Correlation is significant at the .05 level (2-tailed)
In addition, a Pearson product-moment correlation coefficient was computed to assess the relationship between type of instruction encouraged by school; and reading instruction predominantly used. There was a positive correlation between type of instruction encouraged by school; and reading instruction predominantly used, \( r = 0.453, \ n = 246, \ p = 0.01 \). Increases in the type of instruction encouraged by school were positively correlated with increases in the reading instruction predominantly used. This finding shows that teachers’ literacy instructional approach is consistent with the instruction encouraged by their schools so that there is no disconnect between the method the school encourages and what the teachers predominantly use.

*Qualitative findings:*

The findings and discussions are presented in sections under the relevant questions.

*Question One: 1. How are teachers prepared through their professional development to teach literacy in the first cycle of primary school?*

Question one will be discussed under the following headings: number of literacy courses pursued, the relevance of the courses pursued, and professional development related to literacy attended including the usefulness and relevance.

Initial teacher preparation program is offered by means of an Associate Degree of Arts in Primary Education. The goal of the Associate of Arts Degree Program in Primary Education seeks to produce competent and flexible teachers despite challenges they face in the primary classroom. Hence, the need for student teachers to achieve the Program learning outcomes for the Language Arts instruction which includes but is not limited to: demonstrate knowledge and understanding of literacy systems, Demonstrate knowledge and understanding of the major components of Language Arts, Understand the importance and uses of a range of approaches in language and literacy instruction,
including text/literature based, and, phonics. Later preparation is offered by means of the Bachelor Degree in Primary Education.

*Literal courses pursued in teacher preparation*

Teachers have the opportunity to enroll in the Associate of Arts Degree in Primary Education either as a pre service or in service teacher. Program can be pursued either as a full time or part time student. Whichever program student teacher enrolls in, it is mandatory that student teachers pursue method courses directly related to literacy such as Language Arts Methods for the Primary Classroom I, and Language Arts Methods for the Primary Classroom II as well as support core such as Fundamental of Linguistic. Of the fourteen respondents, only two had taken all three courses pertaining to literacy. One respondent highlighted:

We learnt about the writing skills, the different ways that students develop their learning skills, their different reading skills and their reading styles just to name a few.

However, the findings also revealed that some of the teachers have taken only one of the three literacy courses. From those three teachers who have taken only one of those courses, two are presently in training and are aware that they have two more courses to take that pertain to literacy. In addition, two teachers have taken two literacy courses. Interestingly, two teachers reported that they have taken six and eight courses respectively that pertain to literacy. One of these teachers reported:

I have a Master’s degree in Teacher Education. Well, first of all, the courses took into consideration children’s learning level so I had to learn first of all how children learn, second of all the methodology of teaching literacy, the content different literature bases, the different literature genre, how to write stories and how to teach about stories.

In addition, the remaining teachers which totaled five, have not taken any of the courses pertaining to literacy or were not sure if they had taken any course related to literacy.
Relevance of the courses pursued

The goals of the Language Arts Teacher Education Program are to equip teachers to plan for and use various genres of oral and written texts to enhance and assess thinking, listening, speaking, reading, writing and viewing skills. In addition, the goals state that teachers will apply the writing process to their own work and instruct students to use it to create original, accurate, expressive and creative written work and those teachers will demonstrate knowledge and understanding of the major components of Language Arts. As a result, the courses offered in teacher preparation should be geared towards achieving these competencies. Most of the respondents believed that the courses taken in teacher preparation were relevant for the teaching of literacy. The respondents stated that the courses took into consideration multiple aspects of literacy development which are essential to the teaching and learning of literacy. Most of the respondents were able to identify areas that the courses dealt with which included: addressing the entire writing process, methodologies for teaching literacy, how students learn to read and strategies to implement in the classroom, genre of literature, learning styles and grouping students. However, a few teachers thought that the courses were not relevant. One participant stated:

I believe that I need more to prepare me at a good level. Several times we were asked to teach the Language Arts in an Integrated Approach and they just explain to you but they never taught you how to do it. The tutors never modeled it.

Professional development related to literacy, its usefulness and relevance.

In our ever changing world, it is important for teachers to be equipped with current information regarding literacy education. The future of students depends mainly on their ability to read and write. Hence, teachers, even those with many years of experience, know that professional development can benefit them tremendously whether the focus is to refine existing practices or to learn new strategies. Most teachers attend professional development sessions relating to literacy. These sessions are coordinated by the Ministry of Education during the summer holidays when teachers are on call. Professional development sessions pertaining to literacy are delivered mostly by foreigners who are Language Arts experts.
Half of the respondents found the professional development sessions relevant and useful. Those respondents commented that they were relevant and useful as it helped them in growing as teachers since they learned different teaching strategies which could be applied in different situations and these strategies gave the student teachers an insight how to categorize students as readers. One respondent stated:

These workshops are very informative and as a young teacher they help me grow and learn different strategies about the way students/children learn to read.

The remaining half of the teachers found some aspects of the workshop relevant and useful. According to the respondents, some aspects were lacking to make it relevant and useful. The professional development session lacked: application modeling, local examples rather than foreign ones, information to address our Belizean context, strategies to adapt for lower division students especially in Phonics, and more time needed to address creative writing. Although some respondents stated that some aspects were lacking to make the professional development sessions relevant and useful, only one respondent recommended that the workshops need to be held on a regular basis. The responded stated:

Very, very useful but what happens is that I think we have to have those workshops more regular and more in detailed, Spend more time on it for us to really understand what exactly you have to do.

The importance of pre and in-service on-going professional development for the development of competent literacy instruction has been documented in the literacy on literacy professional development; however, professional development programs need to use effective instructional practices, be aligned with school curricula and assessments, and enhance teachers’ content and pedagogical knowledge (Corcoran et. al, 2003). In addition, the development of a strong profession of teaching has been reinforced by recent research demonstrating how important teaching is to children’s learning and life chances. Darling- Hammond, 2005). Teachers can impact students’ learning more than any other factors in the educational system. Hence, teachers’ efficacy has a direct impact on students’ achievement.
**Question 2: What are teachers’ competences to teach Literacy during the first cycle of Primary School?**

This question will be discussed under the following headings: How prepared are teachers to teach literacy, the literacy situations, students strengths and challenges, addressing the needs/challenges in literacy instruction, and resources available and used for teaching literacy.

*Preparedness of teachers to teach literacy*

Teaching efficacy can be strengthened by the working environment and the years of experience. Five questions related to teachers’ preparedness to teach literacy were asked. The first specifically, “How prepared are you to teach literacy in the primary school? Explain.” Responses were mixed throughout, with only a few participants acknowledging that they were fully prepared. One participant stated:

Well in my preparation, at the beginning was a little difficult for me but then I started like managing three groups in a class at the same time, it was so difficult. It was difficult for me but then I noticed that if I prepare very well for the three groups and you assign a person per group to deal with what they are supposed to be doing for that session, then it works. Yes, I am ready to teach literacy.

Several of the participants admitted that they were not prepared to teach literacy. One of these participants stated:

When it comes to teaching babies, I try. I haven’t received any training per say to know that I am doing the right thing. So when it comes to preparation I would say not well prepared.

Another noted:

I believe I am not so prepared. I try my best but I believe that there is a lot more space that I can learn because I try my own initiatives in Language Arts. Sometimes I invent my own poems or my own stories that will go along with the phonics that I integrate in there. I try my best but I still need more help.

The majority of the respondents reported that they are somewhat prepared as they either lack resources, so they seek new opportunities through colleagues or online.
sources or they are simply trying their best but not too confident with their practices. One participant stated:

Well I can be much prepared because I am willing, but what I need is the proper training. I need the proper training. I am prepared enough because I read a lot and so for my class I try my best.

And another said,

Well I guess, I would say, I am not so effective because of the materials. It needs a lot of materials to be involved and those materials, if we were to get them and make sure students are provided, where the students need the help is where I implement mostly the games.

Teachers’ preparation to teach literacy is very important as studies have documented the direct correlation between effective teacher preparation and their classroom teaching attitudes and competencies (Hill, Holmes-Smith, & Rowe, 1993; Rowe 1987; Smylie, 1988).

The literacy situation

Teachers in the first cycle of Primary school should possess a vast knowledge of literacy. These teachers should be able to read and write effectively and should have mastered literacy related strategies and skills. These teachers should have a clear understanding of the National Primary School Curriculum, which directs the concepts they are supposed to teach. These teachers should have knowledge about literacy development and factors contributing to why students experience difficulties in reading or writing. With this expertise, these teachers should be able to analyze students’ strengths and needs, thus, providing an environment conducive to literacy development which includes designing and implementing lessons which promote literacy.

In this study, only a few teachers were able to relate the content taught in relation to the students’ level. Only one of the respondents mentioned using the curriculum guide to get content taught and related the content to the students’ level. The teacher stated:

Well the content that we teach them has to be on the children’s level. We have to get the topics from the curriculum and try to see that when we are teaching it
flows. Like if we were doing like reading from the same reading we are going to take our like our grammar, we take out our writing, we take our vocabulary words, or spelling. That is what we do if we find one passage that would be based on all those skills that we are dealing with for the week

Effective teachers incorporate a wide variety of materials in their instruction. Most of the participants in this study were able to discuss these materials as part of their literacy environment. Most of them reported using many hands-on activities such as games, flash cards, and story books to make the literacy situation motivating. One respondent noted, “In terms of the environment, I try to make it child friendly and use games and so on” While another teacher responded:

They are very interested in it especially when I provide hands on activities when we do a lot of orals because we don’t write as much as yet. So games, they have a short attention span so the activities that we do you know, I have to have that in mind. But I find using a lot of reading stories for them that grabs their attention and it helps the sight words.

*Students’ strengths and challenges*

Literacy is the fundamental skill which all other skills depend on. If students are not able to read and write at an early age, they will not be able to master other skills, hence, the reason why teachers need to build on students’ strengths in order for students to be progressive individuals. But the classroom is becoming increasingly diverse with students of varying strengths. Although teachers responses varied in terms of the strengths student bring as literacy learners, they recounted that the students’ strengths derived from students’ motivation, students’ willingness to learn to read, students being able to retell stories, students’ knowing the sounds of letters and students’ overall experiences. Although the classroom has students with diverse strengths, there are also students with challenges. The challenge that most students bring as literacy learners is that of reading. More than half the respondents recounted that reading with fluency, and
sounding of letters as the areas that most of their students have difficulty with. One respondent recounted:

   The challenge would be to sound out the letters. They only know the name of the letters. They don’t know the sounds. I go back to preschool and I think they too need to be evaluated and also how they can effectively reach all the students so that they are more prepared when they reach Infant One.

Although reading has been identified as the most challenging area that students bring as literacy learners, three participants confirmed that first language being Spanish is also a challenge. The location of Belize which transcends into the only English speaking country in Central America, poses a language barrier for some individuals. In some cases, the majority of the students come to school with Spanish being their first language as reported by one participant “Most of them are Spanish speakers, all of them. Spanish is their first language.”

Likewise another participant recounted:

   Because we teach in English in the class, basically when they get out of here, everything else is in Spanish. We give them homework and sometimes they come with the paper the same way we gave them because they have no one to help them.

Addressing the needs/challenges in literacy instruction

An article entitled, “The Challenges of Learning to Teach Reading” written by Louisa Moats (1999), reports that teaching reading is said to be a job for an expert, as teaching reading is a complex process that draws upon an extensive knowledge base and repertoire of strategies. However, teachers are required to find strategies to cater to all learners.

This study has found that the same teaching strategies teachers use to teach literacy, are the very same ones used to address the challenges they face. Therefore, teachers are not catering for challenges they face but rather their practices are part of the everyday literacy instruction. Participants reported using strategies to address challenges and needs in their literacy instruction such as using songs and jingles, playing games with students, and reading stories, but the most common method used is through drill and repetition as one participant reported:
We go over the letter drill with the one that you sing the letter sounds and have them play games with it. Have them set up in alphabetical order, practice how to write it giving the sound, and giving the words with the sound. (face-to-face interview, respondent #12.)

_Resources available and used for teaching literacy_

For optimum results in literacy, an environment must contain more than just books, as children do not learn to read just from being exposed to books. For many children, reading must be taught explicitly and thoroughly, one small step at a time. Reading must be taught using the most appropriate resources. Rich literacy resources include:

- Alphabet materials so that students master the use of alphabet letters in building words, learning blends and digraphs
- Word wall for word building and vocabulary development activities.
- Audio materials to emphasize listening and retention help students’ oral language skills and translate to reading and writing fundamentals as well
- Art materials for drawing, painting and crafts activities
- Writing materials including handwriting materials where students begin to master word studies and to introduce progressive writing that give students opportunities to put their skills to work.
- Books for independent/Buddy Reading
- Drama materials where dramatic play and drama-based learning centers can inspire kids’ imagination
- Poems for teaching the importance of rhyme and meter in literacy skills development
- Computer and Overhead Projector which the range and depth of interactive/technology-based activities is really making a difference in today’s learning centers
- Literacy games and puzzles to make literacy fun and give students plenty of variety
- Pocket Charts to highlight new and unfamiliar words
The use of multiple resources to teach literacy was common among the participants of this study. However, the participants reported using many of the most common resources to teach literacy including flash cards, worksheets, story books, games, puzzles and songs. Notable was the fact that several of the participants of this study mentioned mainly text books as their resources. One of the participants reported:

We use the phonics. We have the fast phonics from the Ministry of Education. We used the Modern Curriculum for Phonics. We use the BRC books. We use the Language Tree. We have those little reading books from the Ministry of Education. We have the Junior Readers for the Lower Division as well. Apart from those, I have the Caribbean English, the old ones.

The text books that these participants referred to as part of their resources were the BRC text books and the Modern Curriculum for Phonics. BRC text is part of a locally produced Phonics based reading series. Modern Curriculum for Phonics in a foreign produced Phonics reading text. Interesting too was the fact that four teachers reported online materials as part of their literacy resources. One respondent stated:

I have the books that the Ministry provided, the extra story books that they bring and the ones that I provide. But like a teacher’s guide, I do not have. So I have to use my own little things that I have learned all through the process of studying. I use that and I invent and research on the internet and get more ideas and that is what I use. (face –to- face interview, participant # 13).

*Question 4: How do teachers’ competences affect students’ literacy development?*

This question was answered by respondents answering the following questions, “How do your decisions for teaching literacy shape you students’ learning outcomes?” The findings and discussion for this question will be done under the following headings: how teachers’ decision shape students’ learning outcomes, teachers’ decision differ for struggling literacy students, evolvement of teaching literacy, teachers’ perception about home environment in the learning of literacy, and parental engagement in the teaching of literacy.
**How teachers’ decision shape students’ learning outcomes**

Teachers’ decision regarding the teaching of literacy has a major impact on the content taught and how it is delivered. All teachers, regardless of their language backgrounds of their learners, make their own decisions that shape their students’ learning outcomes. This study found that teachers use a variety of decisions to carry out their teaching of literacy. However, what was most pronounced was the fact that teachers realized that what they do affect students’ performance greatly whether those decisions were positive or negative. This was stated as:

I believe that my decisions are helping my students because I can see the improvement. At the same time I believe that if I would be more prepared in that aspect of Language Arts or teaching students to read, I think I can do a better job. I would see a better performance from students.

Another participant recounted:

As a teacher, I would say I am always prepared to enter the classroom with my visuals and my materials. So by doing this, it’s a good decision that I make that will help or enhance learning and literacy.

Another participant recorded:

Like I tell you, I love reading and I teach reading a lot. I think what I do have helped my children perform better because if I don’t push reading I don’t think they would be there. In everything I involve reading.

**How teachers’ decision differ for struggling literacy students**

Students who are experiences challenges in reading are found in most classes. What is important is that teachers are aware that students learn at different rates and that environmental factors play a role in literacy. It is the duty of every teacher to ensure that students who are having difficulties with literacy experience some type of encouragements and motivation so that they can achieve. Fortunately, there are many approved strategies that have proven to be successful in the evolvement of literacy. Among these include, teacher-directed instruction, individual conferences, and guided reading groups. This study found that most of its participants were catering for students
who experience difficulty in literacy by using individual assistance through conferencing which was done after school time. One participant stated:

Yes, well I try to give them individual help, a lot of individual help. I try to spot the ones. I know my students who need help, and I try to give them extra time after school time.

The idea of individual assistance was also recounted by a participant who stated:

I tend to differentiate them. Some work better than others, but I have found that spending time with students individually while other are still doing an aspect of literacy, giving individual attention. That helps, you know a lot to not only to enforce, but for the slow learners. You see your mark more with them. So at the end of the week I can say, this student spent more time sounding these symbols or how to identify or use an adjective in a sentence but they have come to this point.

An article entitled, “Helping Struggling Readers,” listed three components to being successful with struggling readers. These components are:

- Assessment constantly
- Match children to text
- Provide daily, on-going, direct instruction in reading based on student needs.

Although it was found that most teachers provide direct instruction for struggling literacy students, notable was the fact that no participant reported that they are engaged in on-going assessment of students’ needs or matching children with text. Similarly, teachers reported assisting students only after class time on a one to one basis working with flash cards and sounding letter to form words.

Miriam Bissu (2004) further suggested benefit from instruction and practice in using the following strategies:

- Using pictures, syntax, and grammar for support in figuring out words
- Cross-checking the words and letters to see that they match
- Cross-checking for meaning
- Asking if the text is making sense
- Asking if it sounds right
- Asking if it's all right to say it that way
- Re-reading to correct errors
- Skipping an unknown word and coming back to it
- Using known spelling patterns and chunks to figure out new words
- Taking off inflected endings
- Re-reading to increase fluency

_Evolution of teaching literacy_

Classrooms are complex environments which are influenced by a wide range of factors. Biological and environmental contexts create the dynamics of every classroom. Although teachers may have taught the same grade for a period of time, no class is identical to another. As a result, teachers need to find creative ways to deal with students. This study has found that all participants admitted that their teaching of literacy has evolved during their career. Even though the factors as to why their teaching has evolved differ, the evolvement of their teaching was similar.

The reasons as to why the participants’ teaching evolved were because they sought assistance from other colleagues, got transferred from one division to another, and gathered experience throughout their years of teaching. In addition, the most common response was due to the type of students that the participants have. Some participants reported that their teaching has evolved throughout their years of teaching due to the nature of the learners they are working with and with the implementation of the integrated approach which was not done in the past. However, the evolvement of their teachings resulted in better students’ performance due to their improved practices. This was confirmed by one participant who stated:

Well it has developed a lot for me because I used to teach like reading I never used to go in depth and especially now that they have asked you to do integration- at first we never used to do integration, we used to do everything separate, Phonics was separate, Reading was separate, Language Arts was separate and now we find out that when we integrate especially in Language Arts; it helps the children a lot.
Teachers’ perception about home environment in the learning of literacy and parental engagement.

Literacy develops when young children are exposed to reading and writing in a home environment that is supportive. Parents and family involvement have been known to assist students greatly in literacy acquisition and development. This study has confirmed that all the participants believe that the home environment is very important in the acquisition and development of literacy. One participant reported:

   Home environment has a lot to do with students especially when it comes to literacy. I have some students, the top students like I have right now; they get help from their parents in reading and in Math. As you know that is the basic subject in primary and basically I am very thankful to those parents, a lot a lot. At home they are helping me and not only me but helping their children. Due to the fact that the children get more involved in the classroom. As I have said, the parents play a big role with students’ education.

However, students face different kinds of literacy practices at home due to their cultural, economic and linguistic differences. (Darling –Hammond 2005). This study has found that all participants agreed on the importance of the home environment in the learning of literacy. As a matter of fact, there is a loud cry from teachers regarding parental assistance in the learning of literacy as these participants recognize that the home and school should have a partnership in the teaching and learning of literacy. All the participants of this study reported that parental involvement is lacking to a great degree. One participant reported:

   Well I would say that in my school I have a little of parental support. I would say I have 22 and out of that 22 I only know 5 of their parents help them. If parents would do their part that would be a great help to us.

This was also confirmed by another participant who narrated:

   Well I believe that they should have more parental guidance because in my class we have like 6 or 7 students that really get help from their parents. I keep asking over and over. Even those 6, the ones who get assistance those are the same parents who come to see me off and on.
Teachers reported that the lack of parental involvement was mainly because parents are not engaging students in reading and students prefer watching television as reported by one participant who stated:

I think that the students are not reading at home. Some parents tend to buy one or two books, but the students are not actually exposed to reading. For me, what I see is that they are more focused in television more than reading.

Consequently, due to lack of parental involvement in the teaching and learning of literacy, participants were asked how they engage parents in the teaching and learning of literacy. Almost all the participants reported that they would send written notes to parents to solicit assistance for their children. This assistance requested was with the actual task the child had to do or inviting parent to visit school to discuss the child’s progress. However, despite the written information regarding the assistance for the child, a lot of parents do not show up. This was stated by one participant who narrated:

I look forward to hearing that parents are helping their children, but of recent, I started the reading comprehension of lower division and instead of just sending the homework, I thought that is was very important that we prepare a letter and beg parents to please help with these activities. So not only just send the work, but pleading to them, encouraging them, asking them or telling them to come for help if they need help because their involvement is very important.

Few participants who did not send written notes requesting assistance from parents, reached parents through a phone call or using a sibling to get the message across. Overall, teachers were dissatisfied with the lack of parental involvement in regards to literacy.

Question 5: Which teaching methodologies are used in the teaching of literacy?

The finding and discussion will be done under the following headings: literacy approach encouraged and teachers perceptions, literacy approaches teachers were taught in teacher preparation, factors that influence teachers decision to teach literacy using a particular approach, perceptions of using the phonetic approach, and the approach most teachers are comfortable using.
*Literacy approach encouraged and perceptions of the approach.*

There are no definite answers or easy solutions for enhancing literacy achievement. Teachers are asked to take up challenges and implement instructional practices that will challenge students so that they can become successful readers and writers. However, there is knowledge about the skills students must acquire in order to read and write well. These skills provide the basis for comprehensive curriculum choices and teaching methodologies. Our Belizean national curriculum guide for Language Arts encourages the use of the integrated approach since it is formatted in the philosophy of spiral knowledge. This study found that the methodology that almost all participants used were indeed what is advocated in the curriculum.

An integrated curriculum is one that brings content together from the various components of Language Arts, thus introducing them in a meaningful way. These various components are usually linked to reading, writing, listening, speaking and viewing. Implementation of an integrated curriculum provides many benefits for students and teachers alike since the concepts are taught as a whole rather than in segments. This study has confirmed that most teachers are familiar with this method and is the method most widely used in the teaching of literacy. One participant reported:

We do the integration model whereby all the five components should be linked to your lesson. We at least try to teach three components for a day. Phonics is taught every day and comprehension strategy or skill is taught every day as well.

Another participant confirmed that this approach is used by stating:

In my school the approach that we use is the integrated Language Arts approach whereby we are encouraged to teach Language Arts as an integrated approach instead of in isolation. What I usually do if I am teaching Grammar and Phonics for that day, I would get a passage, whether it is a passage from the BRC or the Language Tree or if I have to create a passage I would read that passage aloud and I would have the children pick out the phonics aspect from that certain passage and from there we would develop on phonics, whatever the phonics is pertaining to. It’s the same thing for the Grammar. If we are dealing with verbs, I would have the children pick out verbs from the story we would build up on that.
Two teachers did not report using the integrated approach but rather mentioned some activities they used when asked about their teaching approach. The two responses which were activities rather than approaches were using manipulative and uninterrupted sustained silent reading (USSR).

One teacher reported using the phonetic approach and the other teacher respondent that it was left to the discretion of the teacher to decide which approach he or she was comfortable with.

*Literacy approaches taught in teacher preparation*

When asked if the approach the teachers were using was similar to that used when they were taught in their teacher preparation, it was found that for the teachers who did teacher preparation, it was similar. Because not all the participants have been formally in teacher preparation courses, the question was not applicable to all of them.

*Factors that influence decision to teach literacy using a particular approach*

There may be many factors that would influence a teachers’ decision to teach using a particular approach. Influential factors such as: school and class dynamics, and familiarity of a particular strategy were recorded as some of the factors influencing the type of strategy used in this study. Half of the respondents reported that the students’ needs and the students’ level were the determining factors for selecting the integrated approach to teaching literacy. This was confirmed by a participant who said:

Some of the main factors would be working with them. Seeing their weaknesses, find which factor would be appropriate for their level and then I work through that.

*Perceptions of using the phonetic approach*

Phonetic approach includes the ability to notice, think about, and work with the individual sounds in spoken words. Therefore, prior to children learning to read print they need to become cognizant of how the sounds in words work. They must understand that words are made up of speech sounds, or phonemes. This study has found that most teachers are comfortable about using the phonetic approach to teaching reading as stated by one participant:

Well, I think the phonetic approach is an excellent one, because if the children don’t know their phonics, they won’t learn to read. It’s a guarantee that they were
going to read. I encourage everybody, and I even teach especially the ones that are not Belizean. In addition to benefits students will derive from the phonetic approach, one teacher also related personal benefits of using the phonetic approach. This participant responded:

Well, I am comfortable in using the Phonics Approach because I am learning too. There are a lot of things in Phonics that in my days, they did not give explanation, now we have those books that come with rules and everything. So I am learning as I learn, I think it is better chance for the children to learn along with me. Similarly another participant found that the Phonetic Approach to teaching literacy is very important when stated:

I thing that it is very, very important because they need to learn the rules of when the sound changes and why instead of them just guessing, I wonder if the g should say gugu or jiju.

*Teaching approach teachers were comfortable using*

There are various factors that influence the participants’ choices to literacy approaches. However, it was found that the majority of the participants found the integrated approach to teaching literacy as the approach they are most comfortable using for various reasons namely that it is student centered, learning occurs rapidly, and the content covers all areas and they connect. When asked what approach to literacy instruction the participants were most comfortable using, one participant stated:

I would say the integrated approach because it covers all the areas and they do connect. (face- to -face interview, participant #3)

In agreeing with the previous participant another stated:

The approach I feel most comfortable is the Integrated Approach because it’s both student centered and teacher centered in that the students are involved, the teacher is involved and the teacher is guiding them. I think learning is taking place more rapidly. (face –to- face interview, participant # 6)

However, not all the participants agreed to the integrated approach being the one that they feel most comfortable because as one stated:
Well I feel more comfortable using the phonetic approach because the integrated is very broad and you have to break it down, but the phonetic approach from my point of view it is okay and easier, but we are asked to do the integrated approach here at school, so we have to do it. (face- to- face interview, respondent # 14)

Document Review

A review of curricula offered at the Associate Degree shows that student teachers pursuing this Degree take a maximum of three courses related to the teaching of Literacy. These three courses which total nine credit hours are, Fundamentals of Linguistics, Language Arts Methods for the Primary Classroom 1, and Language Arts Methods for the Primary Classroom 2. Fundamentals of Linguistic is a support core and focuses on the content that teachers need to enable them to teach the Language Arts Primary school curriculum. The method courses are intended to equip teachers to teach Both methods courses are professional courses and are designed as part 1 and part 2. Both method courses equip teachers with knowledge, and skills to teach Language Arts from Infant 1 to Standard 6.

A review of the course Fundamentals of Linguistic shows that Units covered are: Language and Communication, Language Acquisition, Language and Cognitive Development and Speech Communities. Embedded in the Unit Language and Communication are such concepts as language structures (phonetics, phonology, morphology, syntax, and semantics). Included in the Unit Language Acquisition are factors influencing language development such as brain development, age, sex, speech apparatus, etc. However, there is no mention of the complexity of literacy which requires children to develop a variety of skills with different support. In addition, this course does not reflect the reality that children obtain formal instruction in literacy at different points and therefore need to be assessed in the literacy development when they enter primary school. Also, there is no mention of the role early childhood literacy plays in the literacy development of children.

While there are mentions of language structures such as phonetic, phonology, morphology, syntax, and semantics, there is no mention of the importance of word recognition, phoneme-grapheme decoding and encoding, recognition of syllables and
morphemes, reading comprehension, and writing in the development of literacy skills. So that even after students complete this course, their knowledge of the development of literacy skills remains very limited.

A review of the other two courses which students must take, Language Art Methods 1 and Language Arts Methods 2 show that these two courses are designed individually to prepare students to teach literacy skills to young children and older children. A review of Language Arts Method 1 which is relevant to this study since it focuses on the teaching of literacy to young children, show that students must demonstrate the following knowledge: major components of reading including phonemic & phonological awareness, alphabet code knowledge, sight word recognition, vocabulary, fluency, comprehension strategies, print knowledge, graphic knowledge, grammatical awareness, contextual knowledge and motivation. The instruction in this course is shared between literacy concepts and literacy instruction. However, since students do not acquire much knowledge in literacy development from the foundational course, this course is insufficient in preparing teachers to teach literacy to young children. In addition, this Course does not offer teachers any discussion on instructional methodologies for children who are struggling with their literacy skills. Hence, teachers are not prepared to deal with children who have difficulty in reading and writing and who are most at risk to fail and drop out of school.
Conclusions and Recommendations

This Study. The causes of school failure in the teaching and learning of literacy in the first cycle of primary school in Belize investigated the teaching of literacy by asking the following research questions:

1. How are teachers prepared through their professional development to teach literacy in the first cycle of primary school?

2. What are teachers’ perceptions of their own competencies to teach reading and writing in the first cycle of primary school?

3. What are teachers’ perceptions of early literacy instruction?

4. What instructional methods are used in the teaching of reading/writing in the first cycle of primary school?

5. How do teachers’ competences affect students’ literacy development?

The study used a mixed method design and data were collected using interviews, questionnaire, and document review. Each research question, its findings and corresponding conclusions are discussed below.

Question 1: How are teachers prepared through their professional development to teach literacy in the first cycle of primary school?

Findings:

a. Teachers take a maximum of 3 courses related to literacy in their teacher education program at the associate level and another 3 at the bachelor’s level. These courses include content and methods related to the teaching of literacy.
b. Majority of teachers felt that their professional development training had prepared them to teach literacy at the primary school level.

c. The number of professional development sessions in literacy that teachers reported having done in their entire teaching career (average teaching career reported was 10 years) was between 1 and 6. Further probing on professional development through interviews found that these professional development sessions were lacking in relevance and usefulness. Participants noted that these sessions should include modeling of instructional strategies, local examples as opposed to foreign ones, knowledge to address the Belizean context in literacy, strategies to teach literacy in early years, and strategies to teach creative writing.

Conclusions:

a. Literacy courses offered in the teacher education program are insufficient to prepare teachers to effectively teach literacy. Teachers who are trained at the associate level take only 3 courses in literacy even when they are expected to provide literacy instruction to students in early years, provide specialized instruction for remedial readers, and effectively assess students’ literacy level. This study has shown that while the majority of teachers felt that their professional training program had prepared them to teach literacy at the primary level, there was still an unacceptable percentage of teachers (21%) who did not feel prepared to teach literacy. In qualitative interviews, half of the participants felt that their teacher preparation program did not prepare them to teach literacy in the early years of primary education. In addition, teachers relied heavily on on-going professional development, colleagues, and mentors in helping them to provide effective literacy instruction.

b. On-going professional development sessions are not effectively addressing the deficiencies in literacy instruction.
c. Teachers are expected to be literacy experts in the classroom while the teacher education program prepares them to be generalist teachers.

Research Question 2: *What are teachers’ perceptions of their own competencies to teach reading and writing in the first cycle of primary school?*

Findings:

a. Majority of respondents were confident in their competencies to teach literacy in early years of primary school. However, 21% expressed little or no confidence to teach literacy.

b. The more confident teachers were in their competencies to teach literacy, the more they used a variety of strategies. However, findings from interviews showed that teachers did not make any distinction between strategies for remedial readers and those for fluent readers. In other words, no differentiated strategies are emphasized for remedial readers.

c. The more professional development sessions teachers attended, the higher their confidence in literacy instruction. However, findings showed that the number of professional development teachers accessed were severely limited. In addition, findings from interviews showed that more than half of the teachers interviewed noted that their professional sessions needed to be more related to the literacy context in Belize.

Conclusions:

a. While a majority of respondents expressed confidence in teaching literacy, the percentage of teachers who are not confident is worrisome because these teachers are currently teaching literacy. The likelihood that their teaching is effective is very small; therefore, the children in their classes will be affected negatively.
b. While teachers are using a variety of strategies to teach literacy, they have to be
taught strategies to deal with remedial readers and writers because these are the
children who are at risk of failing.

c. Professional development sessions have been helpful to most teachers throughout
their teaching career; however, these sessions are not as frequent as should be and
are not accessed by all teachers.

Research Question 3: What are teachers’ perceptions of early literacy instruction?

Findings:

a. Seven eight percent of participants reported using a variety of instructional
strategies very often.

b. Seventy one percent reported utilization of a variety of assessment strategies quite
a bit.

c. Seventy one percent reported adjusting their instructional strategies quite a bit.

d. Seventy four percent reported utilizing an alternative explanatory model when
their children did not understand something being taught.

e. There was no correlation between teachers’ academic preparation and their
perceptions of early literacy instruction.

Conclusions:

a. Teachers who teach early literacy instruction have been taught a variety of
instructional and assessment strategies to use in their teaching; however, findings
from qualitative interviews showed that while teachers have and can use a variety
of instructional and assessment strategies they struggle with how to differentiate
the instruction and assessment to each individual child’s literacy competency.

b. Teachers in early literacy instruction also struggle with teaching literacy to
children whose first language is not English.
Research Question 4: *What instructional methods are used in the teaching of reading/writing in the first cycle of primary school?*

Findings:

a. The type of instructional method most encouraged by schools is the combination approach (phonics and whole language); this was followed by the whole language approach.

b. The type of literacy instructional method most used for the teaching of remedial readers was found to be phonics (44.4%); combination approach (41%); and whole language (14%).

c. Method of instruction most widely used to teach beginning readers was found to be phonics (65%); combination approach (26%); and whole language (10%).

d. The method of literacy instruction most used by teachers was found to be the combination approach (49%); whole language (30%); phonics (21%).

e. There was a positive correlation between literacy approach encouraged by schools and the literacy approach most predominantly used by teachers.

Conclusions:

a. Most schools are encouraging a combination of phonics and whole language approaches; qualitative findings also show that teachers are more at ease with teaching using the whole language approach since this is the method that is taught in the teacher education program but they also understand the need for phonics.

b. In teaching remedial readers, teachers use the phonetic approach which is consistent with literature on remedial readers.

c. Most teachers reported using the phonics approach in teaching beginning readers. This is consistent with the literature on beginning readers which supports the idea that the phonics approach is more effective in helping children to improve their decoding and word recognition skills particularly in kindergarten and first grade.

d. Majority of teachers are using the combination approach. However, more than half of the teachers are using individual instructional methods—either phonics approach or whole language approach. This finding suggests that schools need to ensure that their teachers are consistently using the preferred school approach but can use the other individual approaches when necessary and appropriate.
e. The instructional approach encouraged by schools was predominantly also the instructional approach most used by teachers.

Research Question 5: How do teachers’ competences affect students’ literacy development?

Findings:

a. Teachers realize that their decisions in regards to the teaching of literacy have a significant impact on their students’ literacy development. Therefore, they need additional assistance with strategies to reduce literacy failure in the first cycle of primary school.

b. Teachers cater for students with difficulty in literacy through individual assistance after school.

c. Teachers noted that their literacy teaching has evolved over their teaching career through assistance from peers, the type of learners they encounter in their classes, and new approaches introduced through professional development.

d. Teachers firmly believe that the home environment has a significant impact on children’s literacy development.

e. Teachers recognize that the home and school should have a solid partnership in the teaching and learning of literacy.

f. Teachers noted that parental involvement in children’s literacy development is severely lacking in Belizean schools.

Conclusions:

a. Teachers’ recognition of the impact their teaching has on the learning of literacy is encouraging and must be followed with supportive structures such as on-going professional development sessions, peer coaching, and current literacy resources and materials.

b. Teachers cater to students with difficulty in literacy; however, this approach is limited in offering the kind of remediation a student may need. Students who are
experiencing difficulty in literacy need other interventions such as on-going assessments and matching them with appropriate level texts.

c. The need for on-going professional development in literacy is significant to teachers of literacy.

d. Teachers realize the importance of parental involvement in children’s literacy development but struggle in finding ways to spur this parental involvement to benefit the children in their literacy classes.

e. Schools must make a concerted effort to get parents to understand their role in their children’s literacy development and establish a solid partnership between the two for the benefit of the children, especially those who experience difficulty in literacy.

**Recommendations:**

a. The Teacher Education Program should provide opportunity for teachers to take more courses in the teaching of literacy in the lower cycle of primary school. Since school failure tends to be concentrated in the lower levels and literacy failure has been documented as one of the causes, teachers at this level need to be trained to deal with the complexities of teaching literacy. Three courses at the associate degree level are not enough to prepare teachers to teach the complexities of literacy particularly to children who have difficulty reading and writing.

b. The Teacher Education Program should provide a literacy track for teachers who teach literacy in the first cycle of primary school to follow either as pre-service or in-service. Teachers would then be specialist in literacy and be able to act as literary coaches to other teachers in the lower division of primary school. In the current system, teachers in the lower division are expected to be literacy specialists but the Teacher Education Program does not educate them for such. Because literacy has been shown to be a critical factor in a child’s
success in primary school, emphasis must be placed in the Teacher Education Program to train literacy specialists.

c. Courses in the Teacher Education Program should emphasize individual literacy assessment; on-going assessments, and individualized teaching strategies for remedial readers and writers.

d. Professional development in the content and delivery of literacy instruction should be on-going throughout the academic year and should be the responsibility of individual schools/management and the Ministry of Education. These professional development sessions should be consistent with school and teachers’ evaluation in order to make the sessions relevant to teachers’ weaknesses as evident in their evaluations.

e. Schools should develop solid literacy plans which include the following components: philosophy of literacy development; guiding principles; professional development for teachers; combination approach (phonics and whole language approaches); individualized instructional and assessment strategies; and parental involvement in children’s literacy development.

f. Children entering primary school for the first time should be assessed for their literacy competencies and placed in classes which suit their literacy needs. Teachers should be trained to conduct these individualized literacy assessments.

g. In-school and after school structured interventions should be set up by individual schools to assist students with literacy deficiencies.

**Implications for further Research:**
This Study investigated only one aspect of literacy teaching and learning in Belizean schools. The Study also collected data from teachers through survey and qualitative interviews; it did not collect data from classroom observation which could provide
insights into how literacy is actually taught in the Belizean schools. A subsequent study could include classroom observations as a major data collection component. Other areas worth investigating include children’s’ attitudes towards literacy, and parental involvement as factors which affect literacy development.
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