ABSTRACT

SELF-EFFICACY, PARTICIPATING IN THE PACE PROGRAM AND MOTIVATION TO READ LIKE PREDICTORS OF THE READING PROFICIENCY

by

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Main adviser: Jaime Rodriguez Gomez

ABSTRACT OF GRADUATE STUDENT RESEARCH

Dissertation

Montemorelos University

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Title: SELF-EFFICACY, PARTICIPATING IN THE PACE PROGRAM AND MOTIVATION TO READ LIKE PREDICTORS OF THE READING PROFICIENCY

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Problem

This study sought to determine how self-efficacy, motivation to read and the PACE program predict the reading proficiency of 5th and 6th grade students in private Christian schools in the Northeastern United States.

Method

The research was empirical quantitative, ex post facto, non-experimental, correlational, descriptive, transversal and explanatory. The latent exogenous variables used in the research were self-efficacy, motivation to read, and the PACE program, and the endogenous latent variable was reading proficiency. The population consisted of 65 students from PACE schools or programs and 85 students from non-PACE schools. The final sample consisted of 104 respondents. The instrument used for this study was

a structured questionnaire whose validity and reliability were predetermined. Structural Equation Modeling (SEM) was performed to determine the effect of the three predictor variables on reading proficiency, the criterion dependent variable.

Results

Structural Equation Modeling (SEM) was utilized to show that the best predictor of reading proficiency was the variable self-efficacy. The prediction coefficient between the variables self-efficacy (γ = .55) and the PACE program (γ = .21), explaining significantly student reading proficiency. The structure model shows that there is a significant positive correlation between the self- efficacy and motivation to read variables (ϕ = .56). Together, the three predictive variables explain, directly and indirectly, 21% of the variance in reading proficiency.

Conclusions

In the present study self-efficacy appeared to be the variable with the most significant impact on reading proficiency. Participation in the PACE program was the variable with the second most significant impact on reading proficiency. These results suggest that participation in the PACE program, positively impacts reading proficiency. It can be concluded that students who participate in the PACE program are more likely to have improved performance on reading proficiency tests than their non-PACE peers.

Montemorelos University

School of Education

SELF-EFFICACY, PARTICIPATING IN THE PACE PROGRAM AND MOTIVATION TO READ LIKE PREDICTORS OF THE READING PROFICIENCY

A dissertation
presented in partial fulfillment
of the requirements for the degree
Doctor in Education

by

Autley Marrett

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SELF-EFFICACY, PARTICIPATING IN THE PACE PROGRAM AND MOTIVATION TO READ LIKE PREDICTORS OF THE READING PROFICIENCY

Tesis
presentada en cumplimiento parcial
de los requisitos para el título de
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por

Autley Gilford Marrett

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DEDICATION

This work is dedicated to my ‘partner in crime’ Marva who went through this process with me, and Ashley and Autley Jr. who are scholars in their own right. It is also especially dedicated to Austin who is on the path to scholarship. May the Lord direct your path in your future endeavors.

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CHAPTER I

PROBLEM DIMENSION

Introduction

Reading is a critical skill, necessary for success in this globalized environment. Reading or literacy has assumed a wide range of modalities and learning in new contexts that 21st century students are required to navigate and master.

However, studies indicate that there is a decline in motivation to read and consequently reading proficiency as students transcend the primary grades. This study aims therefore to determine the impact that self-efficacy, motivation to read and the PACE program have on reading proficiency in order to propose solutions for this critically important challenge.

Students in the middle grades of private religious schools have been targeted. These schools, due to their size and resource levels, generally practice multigrade teaching. Teachers need the advantage of innovative resources and strategies to enhance the efficiency of the teaching learning process, with students being major beneficiaries of research-based advances.

The background and underlying reasons for this research, which includes the statement of the problem that was investigated, the hypotheses of the research, the objectives, the justification, the limitations and delimitations, the philosophical framework and the definition of terms are included in this chapter.

Antecedent

The motivation/ inspiration for doing this study, comes from decades of teaching upper elementary students in both rural and urban settings who struggle with reading acquisition. The researcher is a specialist in content area reading and since the early years in the profession has been confronted with the challenges presented by students in the middle and upper grades who could not interpret print. This naturally increased the difficulty level, and significantly slowed the process, of content delivery. These early challenges occurred in a rural, Third World environment. Unfortunately, today, the same issue is evident in an urban First World scenario. Although the researcher has long debated this issue and come to the conclusion that the problem has its genesis in the lack of early reading intervention and exposure to print, it does not negate the fact that teenagers are leaving schools without functional levels of literacy with their chances for success becoming extremely limited.

From the researcher's experience, upper elementary students are very resistant to direct reading intervention, which is considered demeaning or derogatory. Students try to avoid the stigma of being identified as less than competent readers. Having used the PACE lessons in reading and other subject areas with students at these grade levels, this researcher has observed that students have a more positive attitude to and are more willing to use this material. Students appear to be more engaged and motivated to complete academic assignments and responded with more confidence than observed with much of the material and strategies that had been utilized over the years. The PACE materials appeared to increase students' reading motivation.

Reading Motivation

Motivation is a critical element in learning to read, particularly for struggling readers. Lack of reading motivation impedes upper elementary students' willingness to improve critical reading skills and strategies to be successful in school (Melekoglu, & Wilkerson, 2013). Reading motivation therefore is a powerful determinant of a student's future as a learner, with ramifications for all facets of life. Herzig (2014) defines reading motivation as: "a person's particular aspirations, ideals, and principles about procedures, and outcomes of reading" (p. 404).

Students' motivation is consistently related to academic achievement, therefore direct motivational strategies are highly recommended for students of all academic abilities. Motivation however has been found to change over time, with intrinsic motivation having marked decreases during the later elementary and into the middle school years (Palmer, & Wehmeyer, 2003).

Self-efficacy

The concept of self-efficacy was first proposed by Bandura (1977) and used as a basis for his social cognitive theory. Self-efficacy is defined as a person's belief about his/her capability in consolidating and executing an activity successfully (Durdukoca, & Atalay, 2019). Student self-efficacy can be perceived as their belief that they have the cognitive, behavioral, and motivational resources needed to influence events in their lives and can access these resources when required. Academic self-efficacy can be defined as one's belief that academic tasks can be successfully accomplished (Yasarturk, 2019). Self-efficacy levels therefore critically influence students' academic performance in general along with their focus and attention to reading tasks. Students who

exhibit higher levels of self- efficacy will set specific goals, organize their time and resources and consequently be likely to perform well academically. Students with lower levels of self-efficacy will however be less focused and organized and consequently be expected to perform poorly.

Statement of the Problem

To what extent does self-efficacy, motivation to read, and participating in the PACE program explain/determine the reading proficiency of 5th and 6th grade students?

Hypothesis

The hypothesis raised is as follows: Self-efficacy, motivation to read, and participating in the PACE program, are like predictors of reading proficiency of 5th and 6th grade students in private Christian schools in the Northeastern United States.

Purpose

The purpose of the study is to examine the impact of the PACE program, self-efficacy, and reading motivation on reading proficiency among grades five and six students. Reading proficiency is one of the most essential skills that a student needs in order to be a continuous learner in all spheres of life: social, academic, mental and spiritual. The way one interacts with and interprets text can have a lifelong impact on ones very quality of life. This study is geared to provide insights into the value and relationship of reading proficiency to self-efficacy and reading motivation which impact overall learning.

The results will be shared with the NEC teachers who will gain insight into the relationship of these variables. This knowledge will be the foundation on which reading intervention strategies and approaches could be selected for large group classroom use, and also individualized to meet student needs.

The administration of the Northeastern Conference will also be beneficiaries of the findings. These could provide the data on which decisions regarding conference-wide reading interventions, procurement of materials and adoption of reading programs could be based.

Justification

Reading is one of if not the most important skill a child can ever acquire (Allington, & McGill-Franzen, 2018; Anderson, 1999) Reading proficiency is an enduring skill that is vital to everyday life. It is one of the strongest predictors of primary students' performance in all subject areas in the upper grades (Melekoglu, 2011). Fielding, Kerr, and Rosier (1998), in emphasizing the esential value of reading proficiency to society posit that:

> The most expensive burden we place on society is those students we have failed to teach to read well. The silent army of low readers who move through our schools, siphoning off the lion's share of administrative resources, emerge into society as adults lacking the single prerequisite for managing their lives and acquiring additional training. They are chronically unemployed, underemployed, or unemployable. They form the single largest identifiable group of those whom we incarcerate, and to whom we provide assistance, housing, medical care, and other social services. They perpetuate and enlarge the problem by creating another generation of poor readers. (pp. 6–7)

Reading proficiency is an important tool in every field of endeavor. It is key requirement for accessing higher education and for academic advancement (Rasinski, et

al., 2017). Reading proficiency is therefore a fundamental reqirement for success in the 21st century.

Motivation to read has been recognized by numerous researchers as a vital element for the acquisition of reading proficiency (Deci, & Ryan, 2008; Egilmez, & Engur, 2017; Pecjac, & Peclaj, 2006; Wigfield, & Guthrie, 1997). Students who are highly motivated to read will read for pleasure and a feeling of personal accomplishment (Schiefele, & Schaffner, 2016; Unrau, & Schlackman, 2006). Their affinity to reading will develop into a vital skill for learning and expansion of their academic capacities (Senn, 2012). Motivation to read can be considered the anchor on which all other learning is established (Melekoglu, 2011; Mucherah, & Yoder, 2008).

Self-efficacy is defined as the belief that an individual has in his/her capacity to achieve success in given situations or in completing a task (Bandura, 2004). Student self-efficacy exerts a powerful influence on their approach to goals, challenges, and tasks (Saeid, & Eslaminejad, 2017). Students who exhibit high levels of self-efficacy display elevated levels of motivation and persistence in completing a task (Malkoç, & Mutlu, 2018; Puzziferro, 2008). Resarchers have indicated a strong correlation between student self-efficacy and academic performance including reading proficiency (Puzziferro, 2008).

While reading proficiency, self- efficacy, and academic motivation have been extensively researched (Flores, & Duran, 2016; Bandura, 1977; Deci, & Ryan, 1985; Wigfield, & Guthrie, 1997), few studies explore the impact of self-efficacy, and motivation to read on the reading proficiency of 5th and 6th grade students.

A search of Seventh-day Adventist sources produced only a few studies addressing the constructs motivation and self- efficacy. This researcher has not identified any studies exploring the impact of self-efficacy, motivation to read and participating in the PACE program on the reading proficiency of 5th and 6th grade private Christian school students.

While students in private Christian schools outperform their public school counterparts on the key indicators of academic performance in standardized assessments (Barna, 2016), students in the middle grades are performig below their grade level. There is a decline in their reading volume and in the transition to content area reading in content-dense subjects such as science and social studies. This study will foster an awareness of the impact of self-efficacy, motivation to read and the PACE program on reading proficiency in SDA schools. Administrators can use the results to address these factors that are so critical to success in every facet of life.

Also of great significance is the value of this study of the correlation between the PACE program, self-efficacy, motivation to read and reading proficiency. This Bible integrated resource can be utilized as an enhancement to academic programs. It's leveled material and student-friendly structure and presentation has endeared it to students in the middle grades.

The motivation/ inspiration for doing this study, comes from decades of teaching upper elementary students in both rural and urban settings who struggle with reading acquisition.

The rationale for using the PACE reading program is that in addition to the researchers' observations of student interest, the program is both paper-based and faith-

based. This satisfies two important criteria which influence the selection of learning resources in SDA schools in Northeastern Conference. As religious schools, faith-based enrichment or intervention programs are preferable. Secondly, many schools have limited access to computers for all students during the day. Therefore, a low-tech, affordable intervention is acceptable especially since Singer and Alexander (2017) has shown that there is very little difference in the comprehension of digital and print text.

Importance

The true value of this research is in the applicability to the Seventh Day Adventist (SDA) Curriculum in the Northeastern region of the United States. Teachers and administrators may adapt certain aspects of this research to enhance the reading and other academic programs in their schools to the benefit of students. The findings will be made available to conference directors and principals so that its relevance will hopefully lead to the adoption of the PACE or a similar program in their schools. Given that the PACE program is a Christian curriculum many aspects are easily adaptable to SDA schools. This research, although conducted in a religious school environment entails aspects that will enhance any academic program.

Limitations

The study has the following limitations:

The Northeastern United States is an ethnically and culturally diverse region with religious schools of various sizes.

1. It is not possible to control for all the individual differences such as ethnicity and/or school size.

2. It is also not possible to control for the length of time a student might have been using the PACE program.

Delimitations

The study has the following delimitations:

1. While 5th and 6th grade students in one State could be studied, this researcher felt that regional data would be more predictive and hence more useful.

2. The selection of commercially available reading programs was bypassed in favor of faith-based material that conforms to the philosophical undergirding of SDA education.

3. The schools selected were all Christian schools.

Philosophical Background

Seventh Day Adventist Christian educators approach the science of teaching and learning from a biblical perspective. The Bible as the principal text is interwoven into each subject área and all subject matter so that the mandate proclaimed by the Word of God that: ‘all thy children shall be taught of the Lord’ will be carried out. Adventist educators also collaborate with the family, church and community in promulgating the command that the Lord gives in Deuteronomy 6:1-13 to infuse the Word into the heart and minds of children from an early age.

This author will share his worldview by elaborating on each construct using biblical references in the context of the Great Controversy theme as it relates to the creation, fall, redemption, and restoration of mankind.

As it relates to creation, the Bible states in Genesis 1:27: “So God created man in his own image, in the image of God created He him, male and female created He them”. God created man to be like Him, mentally, spiritually, socially, and physically. Man was established on earth by God to procreate and expand on His creation. God is the source of all knowledge, and he created man to learn from him and to ultimately be like him. Man was made to be immortal, and with the capacity to excel in knowledge. God spoke the created world into existence, but he took the time and paid special attention to forming man from the dust of the ground. When Adam was created he had the physical, mental, and spiritual features of His Creator (White, 1903). According to John 1:1: “In the beginning was the Word” and it’s the word that it is read in order to comprehend the ways of God. Christians need to be proficient readers lead by the Holy Spirit to teach their children the ways of God.

White (1903) states that:

> True education means more than the perusal of a certain course of study. It means more than a preparation for the life that now is. It has to do with the whole being, and with the whole period of existence possible to man.It is the harmonious development of the physical, the mental, and the spiritual powers. It prepares the student for the joy of service in this world and the higher joy of wider service in the world to come. (p. 13)

In Genesis 3:1-10 the Bible explains how Adam and Eve ushered sin into the world by their noncompliance with God’s direct instruction when they consumed the fruit of the Tree of Knowledge of Good and Evil. As a result, they ‘were afraid’ when they heard God coming in the Garden of Eden, and hid from Him. The fall therefore marked the loss of direct communication with God. Man was no longer able to speak to God face to face; first because of his own guilt, shame and awareness of his sinful state, and secondly because sin cannot exist in the presence of a holy God. God said

to His people, in Isaiah 59:2: “Your iniquities (sins) have separated you from your God your sin has hidden His face from you so he will not hear you”. Isaiah here confirms that it is the sins of man that separates him from God and results in the ever widening gap (distance) between us and God in our physical, mental, social and spiritual dimensions. Man no longer reflects the character of God; sin has eroded the relationship established in Eden.

According to White (1903),

> by transgression, man was cut off from learning of God through direct communion and, to a great degree, through His works. The earth, marred and defiled by sin, reflects but dimly the Creator’s glory. And in our fallen state, with weakened powers and restricted vision, we are incapable of interpreting aright. (p.16)

Thankfully, God is a loving, compassionate, merciful, and faithful Savior of mankind, and He is just a prayer away waiting for man to call on Him and reestablish the broken relationship. He will not reject His children if they go to Him …with a contrite heart (Isaiah 57:15) and prayerfully invite Him into their lives. This assurance is written in the Bible repeatedly, clearly expressed for the reader to understand.

In John 14:1-15, when Jesus told the disciples that if they saw Him they saw the Father, they understood that a life like Christ’s would lead to the restoration of God’s image in them. Jesus in His earlier ministry had declared His mission and message in Luke 4:16-19 “He went into the Synagogue on the Sabbath day and stood up to read and the scroll of the prophet Isaiah was given to Him. He unrolled the scroll and found the place where it was written, The Spirit of the Lord is upon me because He has anointed me” Here Jesus was reading the prophesy of the prophet Isaiah about His redemptive duties towards mankind. He would do this by proclaiming the good news of salvation to the poor; set those under the captivity of sin, and oppression free; open the

eye of those blinded by sin so that they can see who God really is, and reveal to man God's love and favor. He would allow people to see that there is hope, and restore hope to a dying world. He brought further attention to what He read by proclaiming in clear terms that this was the fulfillment of prophesy (verse 21).

Jesus is still trying to redeem man through His written word. Through His testimony and that of those who have a close relationship with Him. He is assuring the current generation that the word has the power of redemption through the Holy Spirit.

Revelation 21:5 tells us that: "He who was seated on the throne said, "I am making everything new!" Then He said, "Write this down, for these words are trustworthy and true." God, who is seated on the throne in heaven, is here saying to John the author of the book of Revelation, write these words that I am telling you about how the world will be restored to the original state. Because these words come from God, there is the assurance that they are true as God is emphasizing.

John is being instructed directly by God to record this prophetic word that represents the greatest degree of hope for Christians in times when the world seems to be at its most degraded state. The comforting words of God are reminding those who believe in Him, that He is going to make all things new.

These words from God represent the primary goal for Christians, and particularly for Seventh Day Adventists who identify with this concept intimately as a part of their name (Adventists) looking forward to the second coming of Jesus.

Students in Adventist schools are taught to be proficient in reading the word of God as presented in the Bible so that they can be fully aware of what is written there and the messages God has for them. Just as God is promising to make all things new,

learners should be asking God to give them new insights into His word, and to understand each new lesson or topic they are going to read as if seeing it through God's eyes. This can only be accomplished through prayer and supplication. "And the Lord God said, it is not good that the man should be alone; I will make him a help meet for him" (Genesis 2:18).

God saw that man was alone after he had named all the animals, paired, and classified them. He recognized that all the other created beings were surrounded by, and interacting with others that were like them.

When God created the earth, He was motivated by the love He had for man, for whom it was being created. He provided everything that man needed to be happy and content. He declared at the end of His work that it was 'good'.

The motivation for creating Eve was because He realized that man needed a companion, he was alone, lonely. This is the point at which he identified something as being not good.

God is ever present to provide His people with the encouragement and the support that they need and also all the resources that are needed for comfort. God monitors closely all of man's activities and is particularly interested in the success of those who serve Him.

In Psalm 121:1, 2, the psalmist states: "I will lift up mine eyes to the hills, from whence comes come my help. My help cometh from the lord, which made heaven and earth".

David, because of his closeness to God is fully aware that when he needs help in the form of inspiration or motivation to complete a task he needs to look to God the Creator.

Christian teachers are God's representatives in the classroom, and model Him for the students. Students therefore may learn to look to God as their source of motivation both intrinsic and extrinsic. Through prayer and the reading of the Bible students can grow their relationship with God. Like the psalmist they will be motivated to boldly proclaim: "I delight to do thy will, O my God: yea, thy law is within my heart" (Psalm 40:8).

In 2 Corinthians 11:3 the apostle Paul is giving the Corinthians this warning: "But I am afraid that, as the serpent deceived Eve by his craftiness, your minds will be led astray from the simplicity and purity of devotion to Christ".

Eve fell into sin because she was motivated by the idea that she could be like God. She made the fatal decision of listening to Satan, in the form of the serpent, instead of obeying God's words of command to her and Adam. Paul warns in the above text about the propensity of humans to be misled by the prospect of gaining knowledge that is not from God. He emphasizes the simplicity and purity of the lives of those whose minds are directed by God's words and who seek the wisdom and knowledge from the one true Source.

The mind of a Christian should be ever focused on developing a Christ-like character. With this as the driving motive, SDA students and teachers will seek God's guidance through prayer in choosing to read material and seek information that will strengthen their relationship with Christ.

Unlike Eve, the Christian student will be motivated by God's gentle entreaty in John 14:15: "If you love me keep my commands". The mistakes of Eve will be imprinted in the mind of the child of God as a reminder that the only protection from false knowledge is obedience to His word.

"My food is to do the will of Him who sent Me, and to finish His work" (John 4:34). "Being found in appearance as a man, He humbled Himself by becoming obedient to the point of death, even death on a cross" (Philippians 2:8).

Jesus's life on earth was fully devoted to saving man. In partnership with the Father and the Holy Spirit He was focused on doing the will of His father who sent Him. He came to accomplish His Father's will by humbling himself and succumbing to the indignity of dying on a cross to save man.

Jesus' 'food' or primary source of sustenance, vigor, power, or motivation was to accomplish the task set before Him- the redemption of mankind.

The goal of every teacher is to engender the level of motivation exemplified by Jesus when He came to earth to rescue man from sin. The exploration of various types of motivation proposed by several thinkers, presents the opportunity to educators to understand how best to motivate each learner. The ultimate goal is to foster the type of teaching/learning environment in which each child is as intrinsically motivated as Jesus was.

Jesus, in John 17:24 makes this request: "Father, I desire that they also, whom You have given Me, may be with Me where I am, to see My glory that You have given Me because You loved Me even before the world began".

Jesus is here praying to His father that His disciples will be saved and experience the blissful feeling of being glorified. This awesome relationship with His father that brought about peace and rest in the Father that 'passeth all understanding' is what Jesus wanted them to enjoy. This could only happen when the image of God was restored in them.

Jesus was motivated to teach His disciples the word of God and demonstrate through His life what it meant to be like God. The ultimate goal of every believer is to make it to heaven; however, this can only be achieved by developing and sustaining the type of relationship with Jesus as He had with His Father. This will supply the degree of motivation that is necessary to achieve this goal.

Students need to experience high levels of motivation in order to overcome difficult tasks and achieve their set learning goals. Christian teachers show by example how to pray and rely on God to take them through difficulties and provide the inspiration to see a project through to its completion.

The Bible in John1:3 states that: "All things came into being through Him, and apart from Him nothing came into being that has come into being".

"For by Him all things were created, both in the heavens and on earth, visible and invisible, whether thrones or dominions or rulers or authorities--all things have been created through Him and for Him" (Colossians 1:16).

God (Jesus Christ) created everything, and nothing in the universe was made by any other means. When God said: "Let us make man in our own image" in Genesis 1:26, He was in consultation with the Son and the Holy Spirit.

The act of creation also demonstrates God's self-efficacy borne out of His capacity to do all things. His limitless power affords Him the confidence to speak matter into existence. There is no doubting His abilities, from His perspective or from that of His faithful followers. The psalmist places particular emphasis on the self-efficacy of God the Creator when he declares in Psalm 33:9 "For He spoke and it was done. He commanded, and it stood firm".

Self-efficacy has been identified by education researchers and scholars as a fundamental element in the teaching/learning environment, both for educators and students alike. This research highlights the importance of self- efficacy to students' learning and continuing to read to learn as lifelong learners. Christian students or students in a SDA classroom will understand that God as creator of the universe demonstrated His self-efficacy, and through Jesus Christ, Christians all have access to the power of God. Each student should therefore be confident in saying: "I can do all things through Christ who gives me strength" (Philippians 4:13).

According to Genesis 2:17, God said: "but from the Tree of the Knowledge of Good and Evil you shall not eat, for in the day that you eat from it you will surely die".

Adam and Eve were given this command by the Lord in order to protect them from evil and certain death. Eve demonstrated a lack of confidence in God's word and in her own comprehension of what she heard when she allowed herself to be deceived.

God gave Adam and Eve a clear warning and He gives numerous warnings and admonitions throughout the Bible. He warns His people that "the devil is like a roaring lion seeking whom he may devour" and this should spur His children to draw close to Him for protection.

A lack of self-efficacy, leads to poor learning outcomes. As demonstrated with the story of the Fall, students should be made aware of the importance of confidence in their abilities which is fortified by experiencing the success which results from practicing self-efficacy.

John 3:16: “For God so loved the world that He gave His only son that whosoever believeth in Him should not perish but have everlasting life”.

In Genesis 22, Abraham offers Isaac as a sacrifice. God gave the ultimate sacrifice, His Son, to save the world from sin and death. Abraham was told by God to go to the mountain and offer his only son Isaac as a sacrifice on an altar. Abraham obeyed God, and traveled to the mountain with Isaac to offer him back to God. God provided an alternate sacrificial offering, thus proving Abraham’s trust and faith in Him.

In his act of almost taking Isaac’s life on the altar in obedience to God, Abraham demonstrates the love of God in sending His son Jesus to die on the cross.

The actions of Abraham, Isaac, God, and Jesus epitomize self-efficacy, in that they are an example of total confidence when completing a given task. As stated in Mark 10:35: "For even the Son of Man did not come to be served, but to serve, and to give His life a ransom for many." Jesus came to earth, remained focused on His task, and achieved His objective by dying on the cross to redeem fallen man.

Through this research and delving into the redemption story depicted in these passages, students will be able to have a more vivid picture of the sacrifice that God made to save mankind, and by extension him/her as an individual.

In Revelation 22:1-5, John gives glimpses of what the ultimate reward of the faithful will be like when he says: “Then the angel showed me the river of the water of

life, as clear as crystal, flowing from the throne of God and of the Lamb down the middle of the great street of the city. On each side of the river stood the Tree of Life, bearing twelve crops of fruit, yielding its fruit every month. And the leaves of the tree are for the healing of the nations. No longer will there be any curse. The throne of God and of the Lamb will be in the city, and His servants will serve Him. They will see His face, and His name will be on their foreheads. There will be no more night. They will not need the light of a lamp or the light of the sun, for the Lord God will give them light. And they will reign for ever and ever".

John the revelator here describes the earth restored to the condition that it was in when God created the Garden of Eden for Adam and Eve before the Fall. He describes in some detail the features of the beautifully restored dwelling place for God's triumphant people, with the river of life crystal clear, the Tree of Life bearing twelve crops of fruits, and the healing power of its leaves. The righteous will be able to see God's face since there will be no sin separating them from Him. There will be no need for the sun, or light from a lamp, since God will be the source of light. The most important sentence concerning the restoration of man from this passage is that they will live with Christ eternally.

Christians today do not typically experience what John did in being given a vivid picture of what the New Jerusalem will be like. However, through prayer and fervently seeking God and studying His word they can enjoy similar encounters with God through the Holy Spirit. These things were revealed to John to share with the people of the end times to strengthen their faith, hope, and trust in God. Confidence in the revocation of sin and the reclamation of the world is the primary aspiration of the true follower of

Jesus.

Revelation 22:6 declares that: “The angel said to me, “These words are trustworthy and true”. The Lord, the God who inspires the prophets, sent His angel to show His servants the things that must soon take place. Many Christians need to hear these words of assurance of the veracity of the words written in the Bible. John having had this intimate relationship with Jesus while He was on earth, and even after His ascension, was fully confident about the prophecies He was given and the source from which they were derived.

SDA teachers transmit self-efficacy and confidence in God’s word as depicted by John in this passage as he reveals to his readers the glorious scenes of the place Jesus promised to prepare for His disciples and all His people when He left earth. In John 14:3 He said: “And since I'm going away to prepare a place for you, I'll come back again and welcome you into My presence, so that you may be where I am.” The goal of every Christian teacher is to pass on this message to each student, and pray that God will open his/her heart to accept God’s word and devote his/her life to being a follower of Jesus. This renewed confidence in God will lead each student to say with the psalmist David: “I desire to do Your will, O my God; Your law is within my heart” (Psalm 40:8).

Definition of Terms

In this section several terms will be clarified for the purposes of this study.

Reading proficiency: Reading proficiency is the ability to interact with text fluently and self-efficaciously, acquiring meaning from what is read.

PACE: This is an acronym for Packets of Accelerated Christian Education which is the course booklet used in this Christian curriculum. The content for each subject in each grade level is divided into twelve such learning packets.

Student self-efficacy: Self-efficacy refers to the beliefs or level of confidence that students have about their capacities to realize their learning or academic goals.

Reading motivation/motivation to read: What moves a person to pick up a book and read it to its conclusion even if it is challenging.

SDA School: Educational institution operated by the Seventh-day Adventist Church.

CHAPTER II

LITERATURE REVIEW

Introduction

Reading is one of the most researched areas of learning. Since reading is linked to every academic field, it is necessary that students acquire this critical skill early in their academic careers. In fact, it is almost universally accepted that early acquisition of reading is an indicator of academic success. The act of reading is an integration of phonics skills, phonemic awareness, vocabulary, comprehension and fluency and is impacted by students' motivation and self-efficacy.

This literature review explores the research related to elementary school readers; identifies who they are, what difficulties they face and the interventions which have proved to be successful. It also reviews what other researchers have discovered about the effect of particular reading intervention strategies applied explicitly in the classroom, on factors such as reading proficiency, motivation and self- efficacy.

Reading Proficiency

Reading proficiency is the ability to interact with text fluently and self-efficaciously, acquiring meaning from what is read. Flores and Duran (2016), citing a previous study by PISA (Organization for Economic Cooperation and Development, 2009), define reading competence or proficiency as the ability to understand and use written

texts in order to achieve one's own objectives and to develop knowledge and the potential to participate in society by means of reflection and involvement as a reader.

> Reading proficiency requires pupils' ability to identify words on pages accurately and fluently, and having enough knowledge and thinking ability to understand or decode the words, sentences, and paragraphs on the page. This requires that pupils be motivated and engaged to use their knowledge and thinking ability to understand and learn from the text (Shoaga, Akintola, & Okpor, 2017, p. 104).

Reading proficiency can also be considered as the act of deriving meaning from text, through the process of decoding written messages and demonstrating understanding (Cline, Johnstone, & King, 2006). According to Connors-Tadros (2014), reading proficiency is achieved when the student is able to recognize written text with fluency and accuracy, and be motivated to use acquired skills and abilities to derive meaningful information from the text. Reading proficiency is therefore a vital academic competence that is essential for learning in all modalities.

Importance

Providing rich input in reading is essential for promoting reading proficiency. Extensive reading (ER) is an excellent way to provide target reading input (Jeon, & Day, 2016). Their research suggests that reading proficiency is improved markedly by students reading extensively for pleasure.

According to VanDerHeyden, Burns, and Bonifay (2018), extensive reading has a positive and enduring influence on vocabulary, comprehension, reading rate, and writing. It also significantly impacts the affective domain where students are motivated by the feelings of pleasure and wellbeing they experience from reading. Children who read more books, and who enjoy reading them, will necessarily improve their reading proficiency (Lurie, 2018). With the increase in computer- based technology and books

available in various modes, extensive reading in various genres is highly recommended. The recent trend in reading proficiency in the United States has been a decline across all grade levels. In his analysis of the reading scores of fourth, eighth, and twelfth grade students from the National Assessment of Education Progress (NAEP) between, 2005, and 2013, Kraidy (2015), reports that students are performing at the basic reading level. While there are significant differences between ethnic groups, on average the national and regional scores are either stagnant or declining (Kraidy, 2015).

Research indicates that this trend has resulted in the decline of available skills in the workforce of the United States over the last two decades which has impacted its competitiveness with other developed countries. Students of similar age groups are outperforming US students (Warner-Griffin, Liu, Tadler, Herget, & Dalton, 2017). In support of the above- mentioned statistics, Cabardo (2015) found that students in the first three years of high school were performing at the frustration level in silent reading and at the instructional level in oral reading.

Investigations

A wide range of theories from the fields of psychology, linguistics, neurology and others have informed reading research, pedagogy, and practice. Practitioners have benefitted significantly from this theoretical base with its centuries' old tradition. This study will review several theories which are relevant for this discussion.

Schema. Schemas are the cognitive patterns of thought and knowledge that helps remember and retrieve information (An, 2013). Wright, Franks, Kuo, McTigue, and Serrano (2016) posit that schemas can be perceived as mental organizers.

Individuals keep information in mental organizers and when something new is learned it is easier to remember if an appropriate file already exists (Wright, et al., 2016). Schema theory is especially important when students are asked questions at the beginning of a reading lesson to activate prior and/or background knowledge, linking what they already know to what they are currently learning. Strategies educators use to activate prior knowledge include KWL charts and Anticipation Guides.

Reader response: Garzón and Castañeda-Peña (2015) state that the reader response theory recognizes that readers "always bring certain personal, cultural, and literary repertoires to their reading which need to be explored and compared." Added to that, one's perception after reading a work for the first time might change drastically when the piece is re-read. Reader response recognizes how vitally important it is for students to think critically for themselves instead of reflecting the thoughts of teachers or other influencers.

Proficient readers create meaning from text, applying it to the appropriate cultural, social and environmental contexts. These readers read and re-read text in order to carefully analyze information and apply their individual understandings to it. As Woodlief and Cornis-Pope (2004) postulate, "developing a strong interpretation requires being very conscious of all of these processes and changes in reading; understanding individual responses better by comparing them with others, thus seeing multiple interpretive possibilities." Reader response theory supports this process enabling students to become engaged, thoughtful, and critical readers (Woodruff, & Griffin, 2017).

Dimensions

Phonemic Awareness. Phonemic awareness relates to the capacity of readers to recognize and control sound in spoken word (Keesey, Konrad, & Joseph, 2015; Suggate, 2016; Tracey, 2017). Phonemic awareness draws the listener's attention to phonemes or the smallest units of sound (Adams, 1994). This allows the reader to be able to identify the sound each letter or grouping of letters makes in a word, e.g. "call" /k/ /a/ /l/ /l/ (Keesey, et al., 2015).

Phonemic awareness is one of the strongest determinants of early reading success (Adams, 1994; Konza, 2014), therefore instruction is usually begun in the pre-kindergarten/kindergarten grades and continues into the primary grades with struggling and/or at risk readers (Santi, Menchetti, & Edwards, 2004). Children who have mastered the phonemic awareness skill will attain high levels of fluency.

Students who achieve phonemic awareness can then progress to phonological awareness; the ability of the listener to derive meaning from the phonemes they can identify (Suggate, 2016). Phonological awareness therefore relates to how readers perceive sounds at the word level.

Phonics. Phonics is the study of the relationship between sounds and letters, and can be defined as the method of teaching reading which emphasizes the correlation between graphemes and phonemes (Bowers, & Bowers, 2017). It is an essential component of reading instruction and practice in the primary grades (National Assessment of Educational Progress, 2012). According to Castles, Rastle, and Nation (2018), systematic phonics refers to reading instruction programs that teach pupils the relationship between graphemes and phonemes in an alphabetic writing system.

Instruction in phonics involves teaching students the sounds of individual letters, then instructing them how to blend these together to form words (Bowers, & Bowers, 2017). There is generally consensus among the major English speaking countries that phonics instruction is critical to early reading acquisition (Machin, McNally, & Viarengo, 2018), however there is debate about the best approach.

The distinction being made between systematic phonics, and other approaches such as whole language to reading instruction, is directly related to the ongoing phonics debate. For decades researchers and practitioners have drawn the line between the whole language and phonics camps (Machin, et al., 2018). Researchers are still advocating for "whole language", the teaching of reading in context, as being the more effective approach to reading instruction (Castles, 2018). Despite the consensus mentioned earlier, although there seems to be a consensus among the major english speaking countries that phonics instruction is critical to early reading acquisition, the debate rages on (Machin, et al., 2018).

Reading Fluency. Fluent readers read with accuracy, speed, and appropriate expression (Stanfa, & Johnson, 2017; Álvarez-Cañizo, Suárez-Coalla, & Cuetos, 2015). According to Calet, Gutiérrez-Palma, and Defior (2017), reading fluency is concerned with speed, accuracy and prosody. Speed and accuracy are the two more quantifiable aspects of fluency, which together lead to automaticity (Calet, et al., 2017). Prosody which is identified by the intonation, expression, stress and timing that is expressed in oral reading, has more recently been recognized as a key aspect of reading (Kocaarslan, 2019). Fluency is a critical component of a child reading ability. When children read fluently, they do so at the rate of speed required for their age or

developmental level (Dowd, & Bartlett, 2019). Accuracy relates to the ability to identify and pronounce words automatically (Kocaarslan, 2019).

Research supports the idea that there is direct correlation between fluency and reading comprehension (Álvarez-Cañizo, et al., 2015; Calet, et al., 2017; Kocaarslan, 2019; Stanfa, & Johnson, 2017). The more effortless a child reads, greater mental capacity will be available to comprehend, analyze, and critically assess text. Much of the meaning is lost when students read haltingly and mispronounces words (Konza, 2014).

Reading Comprehension**.** Reading comprehension refers to the reader's ability to understand the explicit and implicit meanings of the text (Ahmadi, Ismail, & Abdullah, 2013). It involves the decoding of text in order to derive the meaning that is intended to be conveyed by the writer. It is an active process in which readers establish relationships between the text and their prior knowledge (Singer, & Alexander, 2017).

Comprehension of the text is therefore heavily influenced by cultural, social and environmental underpinnings. Reading comprehension cannot be considered a passive activity since it involves the interaction between the reader and the text. During this interaction, students draw on prior knowledge, cognitive information and all other experiences (Ahmadi, et al., 2013).

He (2018) concludes that "reading is a kind of communication between the writer and the reader; and in the process of communication, the text producer encodes his communicative information, while the receiver needs to decode, infer and comprehend what is encoded" (p. 47). Reading comprehension is therefore a complex series of cognitive processes that result in the understanding of text.

Measures

Researchers utilize various qualitative and quantitative methodologies to determine reading proficiency. Data generated from reading inventories and various forms of electronic and paper-based assessments are analyzed to determine students' level of competency in reading. Since students read for a wide range of purposes and in continually evolving contexts, assessment should aim to evaluate reading proficiency according to these factors.

The National Assessment of Educational Progress (2012) in defining reading specifically for assessment state that:

Reading is an active and complex process that involves: (a) understanding written text; (b) developing and interpreting meaning; and (c) using meaning as appropriate to type of text, purpose, and situation.

Language and communication, mechanics of reading, and content knowledge are three overarching skills that are identified in order to determine reading proficiency (Connors-Tadros, 2014). Current research on reading assessment focuses on standardized reading assessments, and classroom-based reading assessments, which are the more commonly used forms of assessments (Grabe, & Jiang, 2013). These assessment instruments consider a wide range of factors to determine the reading ability of groups of students at various levels of their academic development.

Formal and informal reading assessment measures are implemented to determine students' attainment of critical concepts. These concepts include: letter knowledge, phonemic awareness, decoding, fluency, and comprehension. Outlined below are some formal and informal methods used to asses these concepts.

Formal assessments are usually standardized tests that are administered regionally or nationally to groups of students. These are data driven tests used to compare the performance of students with their peers in the same grade or age group. These tests usually provide statistics which are analyzed to determine student performance at the school, district, state or national level (Weaver, 2011). Formal assessments may be diagnostic or summative, presenting scores as percentiles at the beginning or end of a given academic term. Formal reading assessments include: the Iowa Test of Basic Skills (ITBS), Phonological Awareness Test 2 (PAT2), the Gray Oral ReadingTest IV (GORT-4) and the Test of Word Reading Efficiency (TOWRE).

The Iowa Test of Basic Skills (ITBS). The Iowa Test of Basic Skills (ITBS) is administered to students between kindergarten and eighth grade. Reading dimensions assessed by the ITBS include word analysis, comprehension, and vocabulary (Sosnowski, 2020; Hoover, Keeling, Winston, & Slessor, 2003). The word analysis section of the test assesses students' phonological awareness and word parts understanding (Hoover, Dunbar, et al., 2003; Hull, & Tache, 1993). In the reading comprehension assessment, students are tested on individual word understanding through analysis of the author's viewpoint depending on their level (Hoover, Dunbar, et al., 2003). The vocabulary assessment tests the student's general range of vocabulary development. This is done through listening tests at the lower levels and word meaning derived from use in short passages at the higher levels.

Phonological Awareness Test 2(PAT-2). The Phonological Awareness Test 2(PAT-2) is a standardized assessment administered to students in kindergarten through fourth grade. It assesses the student's capacity to decode words as they

demonstrate their understanding of phonemes. Phonemic awareness is assessed using rhyming, manipulation of root words, substitution of phonemes, blending sounds and other mini tests administered by a reading specialist (The Access Center, 2005; Sosnowski, 2020).

Gray Oral Reading Test V (GORT-5). The Gray Oral Reading Test V (GORT-5) is a measure of oral reading fluency and comprehension in students aged 6-24 (Wiederholt & Bryant, 2019). The GORT-5 focuses on five reading elements used to determine fluency: rate of reading, accuracy, a combination of rate and accuracy termed fluency, comprehension and an oral reading index which is a composite of fluency and comprehension (Wiederholt, & Bryant, 2019; Sosnowski, 2020). It is comprised of sixteen reading passages with five comprehension questions each. According to Wiederholt and Bryant, 2019, one of the primary benefits of the GORt-5 is to identify students who may need more intense or explicit instruction in reading in order to make adequate progress in reading comprehension.

Test of Word Reading Efficacy (TOWRE). The Test of Word Reading Efficacy (TOWRE) assesses the student's ability to read sight word and 'phonemically regular' nonwords. It is administered to students ages 6 to 24. It is used for detecting and diagnosing disabilities early. The TOWRE is comprised of two main tests in which the students are asked to read as many words or nonwords as possible in 45 seconds (Torgesen, Wagner, & Rashotte, 2012).

Informal assessments are usually administered at the classroom level to inform instruction. According to Weaver (2011) informal reading assessments are based on student performance as it relates to given criteria. Informal assessments are ususlly

summative, providing ongoing feedback to both teachers and students. Examples of informal assessments include: Dynamic Indicators of Basic Early Literacy Skills (DIBELS), Early Reading Diagnostic Assessments (ERDA), Informal (Qualitative) Reading Inventory (IRI), and Running Records.

Dynamic Indicators of Basic Early Literacy Skills (DIBELS). Dynamic Indicators of Basic Early Literacy Skills (DIBELS) are a set of early literacy assessments utilizing various techniques and processes to screen and monitor reading progress. They are administered to students in grades K-3 to assess letter knowledge skills, phonemic awareness and fluency (The Access Center, 2005).

The Early Reading Diagnostic Assessments II (ERDA-2). The Early Reading Diagnostic Assessments II (ERDA-2) evaluates the five fundamental reading dimensions to assist teachers in planning and organizing instruction directed towards specific student needs (The Access Center, 2005). This assessment is used to diagnose phonemic and phonological awareness understanding, letter recognition and nonword pronunciation, word reading and passage fluency, vocabulary and reading comprehension from kindergarten through third grade (Jordan, Kirk, & King, 2005)

The Informal Reading Inventory (IRI). The Informal Reading Inventory (IRI) is a continuing assessment which should be completed repeatedly throughout the student's academic experience. IRIs are used to assess grade level reading, fluency, comprehension, vocabulary, and oral reading accuracy. It is administered to students from grades kindergarten through twelvth grade and students are expected to master their grade level. In order to assess students' reading proficiency, students read a grade appropriate passage, while teachers complete oral reading accuracy and fluency

assessments. This is followed by literal and inferential comprehension and vocabulary questions to test for understanding. It is suggested that IRIs should be administered to students in the primary grades and struggling readers several times during the school year in order to monitor students' progress more accurately (Rockets, 2020).

Running Record. A running record is a formative reading assessment procedure. It is administered to assess students' reading accuracy and to identify weaknesses in the techniques students employ during oral reading (Ross, 2004). In this procedure, the test administrator applies a predetermined code to the leveled text as the student reads (Fawson, Ludlow, Reutzel, Sudweeks, & Smith, 2006).

These codes identify the type of errors commited during reading (deletions, insertions, and ommissions). Oral reading is usually followed by retelling and comprehension questions from the passage. Teachers use the scores attained from these tests to determine the student's reading level. Functional reading levels have been identified as independent (beyond 95% accuracy), instructional (between 90% and 95% accuracy), and frustration (below 90% accuracy) (Fawson, et al., 2006). Ross (2004) found that in classrooms where students are tested frequently with running records, they achieve higher reading grades.

Three of the more recognized and internationally respected assessments are the Cambridge ESOL suite of exams, the IELTS and the iBT TOEFL. The Cambridge ESOL (English to Speakers of Other Languages) suite of exams (KET, PET, FCE, CAE, CPE) developed by Cambridge University in England is a widely used worldwide English standardized testing program. The First Certificate in English (FCE) or Cambridge First assessment is meant for upper intermediary level English learners and is a test of

reading, writing, listening and speaking. The reading section is divided into seven sections with multiple types of items including various types of cloze items, and text requiring answers to multiple choice questions and matching items. This reading sub-test is an assessment of reading, vocabulary and grammar and is considered the most important Cambridge exam.

The Key English Test (KET) is the simplest of the Cambridge English tests, and its difficulty level is set at ‘elementary’. Reading and writing is combined as one exam followed by listening and speaking. There are two versions of the KET – KET for adult learners and KET for schools.

The preliminary English test (PET) is designed for intermediary English speakers or users who are preparing to learn more advanced English. There are two versions of the PET; PET for adult learners and PET for schools. The format is similar to that of the KET.

The Cambridge Advanced English test (CAE) is designed for English speakers who are confident in their ability to communicate in English. It also consists of four parts, namely: Use of English, writing, listening and speaking. The format of the reading and use of English test is similar to that of the other Cambridge tests but is the most advanced of the exams.

IELTS, the International English Language Testing System, is designed to assess the language ability of non- English speakers studying or working in a predominantly English speaking country. IELTS is recognized in many countries, including Australia, Canada, Ireland, New Zealand, the UK and the USA. More than 2 million people a year take the test. IELTS covers listening, speaking, writing and reading. The reading

section tests the purposes for reading to include reading for specific information, reading for main ideas, reading to evaluate, and reading to identify a topic or theme. The IELTS include an academic version and a general training version. The IELTS academic version consists of forty (40) questions divided into three (3) sections. Each section contains a long text of authentic reading taken from books, journals, magazines and newspaper. They also include various types of short response items, a variety of matching items, and several complex readings with diagrams and figures.

The iBT TOEFL (the Internet Based Test of the Test of English as a Foreign anguage) is the online version of the TOEFL which is designed to assess English language learners' ability to manipulate informational texts at the university level. It uses three general item types to evaluate readers' academic reading proficiency: basic comprehension items, inferencing items, and reading-to-learn items. In addition, the iBT TOEFL uses longer texts than the ones used in the traditional TOEFL. It includes exposition, argumentation and historical biographical academic texts. These assessment systems are constantly being improved and adapted to meet the evolving needs of a global society, and to conform more adequately to reading research findings.

Screening of students to determine reading competence and plan intervention strategies for low-achieving students has been a practice in schools for decades. VanDerHeyden, et al. (2018) conclude in their recent study however, that screening all students had the potential to be harmful. While frequent screening benefitted at-risk students marginally, universal screening proved to be inefficient and did not contribute significantly to the reading proficiency of the general school population.

Self-efficacy

According to Marghitan, Gavrila, and Tulbure (2017), self-efficacy refers to the beliefs that students have about their capacities to realize their learning or academic goals by marshalling their motivational, intellectual, and behavioral resources. Self-efficacy is heavily influenced by one's confidence about what he /she can do in a particular situation (Wang, Harrison, Cardullo, & Lin, 2018).

Self-efficacy is a central tenet of the social cognitive theory developed by Albert Bandura (Bandura, 1977; Korkmaz, & Unsal, 2016; Bandura, 1994; Reaves, & Cozzens, 2018). It focuses on the role of self confidence in performing desirable behaviors and considers self-efficacy a prerequisite in changing behavior.

Later, Bandura (1985) postulated that self-efficacy concerns the belief that a person has in his/her ability to carry out a certain activity which he defined as "judgments of how well one can execute courses of action required to deal with prospective situations" (Bandura, 1982, p. 122).

This theory focuses on the role of self confidence in performing desirable behaviors and considers self-efficacy a prerequisite in changing behavior. Self-efficacy is therefore a student's perceived confidence that he/ she can complete a given task or accomplish an established goal.

Importance

In outlining the importance of the "no child left behind" education policy for the United States, President George Bush pinpointed low expectations and self-doubt as two major causes of academic failure (Dykeman, Wood, Ingram, & Herr, 2003).

Dykeman, et al. posit that the inverse of these negative indicators were motivation and self-efficacy.

Self-efficacy has a strong influence on student's academic performance (Mills, Pajares, & Herron, 2006; Wang, Harrison, Cardulo, & Lin, 2018). In a review of published research spanning a decade, Mills, et al. (2006), found that self-efficacy beliefs of students positively impacted academic achievement. Their analysis revealed that "approximately 14% of the variance in academic performance" (p. 275) was due to self-efficacy.

Research has also pointed to the positive effect of self-effcacy on performance in reading, affecting key indicators such as: choice of reading material, duration of time spent engaged in this activity, and the evidence of an understanding of text (Mills, et al., 2006). "Self-efficacy also determines how much effort people will expend, and how long they will persist, in the face of obstacles" (Bandura, 1982 p. 123). Students who exhibit a high level of self- efficacy are usually considered to be more inclined to put greater effort into the academic endeavors they undertake.

Students who exhibit reading challenges also develop diminished reading self-efficacy, and are extrinsically rather than intrinsically motivated (Crockroft, & Atkinson, 2017). A student's self- efficacy is both determined by and determines his/her capability and capacity to cope with the difficulties he/she faces in school and ultimately in life (Saeid, & Eslaminejad, 2017). Self-efficacy is therefore both a cause and effect of reading difficulties creating a feedback loop. This loop is positive if the student is a proficient reader but is disastrously negative if the student has reading difficulties.

These findings further support the ideas of previous researchers (Mills, et al., 2006; Wang, et al., 2018), and the thesis of this paper, that student academic and reading self-efficacy, are essential to student academic and particularly their reading success.

Investigations

Korkmaz and Unsal (2016) point out that self- efficacy is a crucial concept due to its relevance for student learning and in fact for achievement in varied situations. In their study of self-efficacy among high school piano students, Egilmez and Engur (2017), validated the ideas of Korkmaz and Unsal (2016) when they found that some students exhibited an elevated level of self-efficacy for piano and consequently outperformed their peers.

Students' self-efficacy is important in determining their aspirations, motivation, and academic achievement (Bandura, 1993).

Self-efficacy is related to someone's belief in his/her ability to control their motives and conduct, in their social environment. People's beliefs in their abilities affect what they select or do and help determine their effort, perseverance and endurance (Rabani-Bavojdan, et al., 2017). Perceptions of self-efficacy determine how much effort one will expend on a particular task and how long they will persist in pursuing that activity (Bandura, 1994). Consequently, according to Bandura, those who exhibit a higher level of self-efficacy will have the requisite self-confidence to see a task through to its completion and are concerned about the quality of their performance. Conversely, those with low self-efficacy will be significantly less confident in their ability to complete

given tasks; will exhibit a high degree of reticence and lack of concern with regard to quality.

Self-efficacy Theory

Self-efficacy theory (Bandura, 1982) suggests that an individual has a certain level of confidence in his or her ability to perform tasks. Self-efficacy, as stated earlier, is defined as "judgments of how well one can execute courses of action required to deal with prospective situations" (Bandura, 1982, p. 122). This is a social-cognitive approach to describing task-specific self-confidence and how the level of an individuals' confidence will influence what they do. It is important to note that self-efficacy varies with the task and often affects one or more specific subjects while having no discernible effect on others. As such it also affects peoples' time management choices (Sullivan, O'Connor, & Burris, 2006). Individuals tend to be more attracted to higher self- efficacy tasks, that can be completed quickly and accurately, rather than tasks for which they have a low level of self-efficacy (Bandura 1997; Sullivan, et al., 2006), which may take longer to complete and may not be as correctly done.

Bandura (1982) suggested that four categories of experience may be involved in the development of self-efficacy: (a) enactive mastery (personal attainments), (b) vicarious experience (modeling), (c) verbal persuasion, and (d) physiological arousal. The individual's cognitive appraisal and integration of these experiences will determine self-efficacy (Bandura, 1982; Gist, & Mitchell, 1992).

Bandura's (1982) social cognitive theory suggests that humans can control their behavior. Individuals have a system of self-beliefs that enables them to exercise control over their thoughts, feelings, and actions. Accordingly, "what people think, believe, and

feel affects how they behave" (Bandura, 1986, p. 25). Among the most pervasive arbiters of self-reflection are perceptions of self-efficacy, or "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 3). Beliefs of personal efficacy, therefore, are not dependent on one's abilities but instead on what one believes may be accomplished with one's personal skill set.

Dimensions

Academic self-efficacy can be determined using a wide range of dimensions. Jinks and Morgan (1999) conceptualized self-efficacy as having three dimensions: talent, effort, and context.

The talent dimension is defined by the student's level of self-efficacy as related to his/her natural abilities or aptitudes and the student's confidence in those abilities. According to Korkmaz and Unsal (2016) a person's self efficacy is strongly connected to the confidence he/she has in his/her feelings of competence in completing a task. The student's natural ability to accomplish a task, and do it successfully will give him the confidence to do that task again and respond positively to statements such as: "Sometimes I think an assignment is easy when other student's think it is hard" or "I am a good science student" (Jinks, & Morgan, 1999, p. 226). Such a student is considered to have high self-efficacy. Conversely, a student with low self-efficacy would respond negatively to these items. According to Yiu, Cheung, and Siu (2012) "people will avoid tasks for which they have a low level of self-efficacy". Self-efficacy is a belief about one's skill in completing a task, with the belief being a factor in students overestimating

their academic abilities (Artino, 2012). Students who feel that they have mastered a task or activity will be ever more confident in their ability to complete it.

The second domain investigated by Jinks, and Morgan (1999), effort relates to one's capacity to persist in completing a task especially in the face of difficulties or challenges. This is a key aspect of self-efficacy as it can be a predictor of success or failure. Students who exhibit higher levels of self-efficacy will exert greater effort in completing a task. Self- efficacy levels will determine the persistence, determination, motivation or grit (Jinks, & Morgan, 1999) an individual displays. Efficacious individuals will spend time to plan, prepare and apply themselves to accomplish their goals (Cerino, 2014). Self-efficacy beliefs, determine the amount of effort that will be expended when coping with an activity, and how long the individual will persist in the face of obstacles (Demirtaş, 2018, p. 112). Students who habitually expend considerable effort in completing a task will respond favorably to ítems such as: "I always get good grades when I try hard" (Jinks, & Morgan, 1999, p. 226).

Individuals tend to exhibit varying levels of self-efficacy in different contexts. Self-efficacy is not a constant factor across all contexts. It relates to how individuals perform in specific áreas on particular fields of endeavors (Egilmez, & Engur, 2017). It therefore follows that self-efficacy is specific to the subject área the student is engaged in (Gurcay, & Ferah, 2018). Students with a high self-efficacy in math courses will respond favorably to this ítem, "Most of my classmates like math because they think it is easy" (Jinks, & Morgan, 1999, p. 226), while those with a low self-efficacy in math will respond to the contrary. A student's level of efficacy in a particular subject área will determine the levels of motivation, interest, willingness and performance, the student will

demonstrate. Student self-eficacy belief is also a critical element in the process of advancement towards acquirering the vital element, intrinsic reading motivation (Pecjac, & Peclaj, 2006). Consequently, it is critically important for teachers to determine the level of self-efficacy that students display in a particular subject (Abdullahi, Salleh, Nordin, & Alwan, 2018). While academic self-efficacy research has focused on specific subjects, some researchers have identified some áreas where student self- efficacy might be generalized if there are dimensions in which certain shared competencies may be applied (Fryer, & Oga-Baldwin, 2017). Fryer and Oga-Baldwin in their study of self-efficacy in Japanese junior high students, found that there was strong evidence that self-efficacy beliefs may be generalized across subject áreas such as math, foreign language and native language. Bandura (1982) the principal proponent of self-efficacy, and other researchers emphasize the specific nature of self-efficacy, and not its general character (Marghitan, et al., 2017). They also posit that self-efficacy beliefs vary from one individual to the other and in different dimensions (Sabet, Dehghannezhad, & Tahriri, 2018).

Measures

For the purposes of this study the Morgan-Jinks Student Efficacy Scale will be utilized, which is conceptualized and applied based on the dimensions of: talent, effort, and context (Jinks, & Morgan, 1999) It is composed of thirty questions utilizing a five point Likert-scale with responses such as: really disagree, kind of disagree, I am not sure, kind of agree, and really agree. According to the developers, this instrument has been field tested among K-8 students from a wide range of demographics in schools in the United States.

Factor and item analysis resulted in a thirty-point scale with overall reliability coefficient of .82 and subscale alphas of .78 for talent, .70 for context and .66 for effort. Other researchers have since utilized this instrument in their studies investigating the correlations between self-efficacy and academic achievement.

Reading Motivation

Guthrie and Winfred (2000, cited in Herzig, 2014) define motivation as: "the cluster of personal goals, values, and beliefs with regard to topics, processes, and outcomes of reading that an individual possesses" (p. 27). According to Jang, et al. (2015), motivation originates form the Latin word *movere* which means "to move". Motivation to read therefore refers to what moves a student to pick up a book and persist in reading it even when it becomes difficult. Motivation is what makes a person want to read (Herzig, 2014).

Crow (2015) identifies four major levels of motivation: (a) intrinsic which is driven by the individual's personal interest, satisfaction, inquiring mind, or pleasure; (b) identified which occurs when one personally identifies with the importance of a behavior; (c) introjected which influences an individual to avoid feeling of guilt, shame or worry, and (d) extrinsic behaviors caused by an external demand or reward.

All these levels may be operational in a desire to read and might be lacking in those students who show little interest in the process of reading.

Students who struggle with reading are also challenged to complete related other related tasks. It was found that students fail high school English at a high rate when their writing tasks are not completed. The failure rate was especially high for those students who struggle with general literacy and language skills (Darrington, &

Dousay, 2015). The researchers identified motivation or lack of it as one of the major factors leading to this failure. Students can only accomplish their learnig goals if they exhibit a high level of intrinsic motivation which is required for academic success (Egilmez, & Engur, 2017).

Importance

Motivation is recognized as playing a powerful role in both learning to read and continuing to read. Lack of reading motivation impedes upper elementary and secondary school students' willingness to improve critical reading skills and strategies to be successful in school (Melekoglu, & Wilkerson, 2013). Motivation for learning to read is a critical element particularly for struggling readers. Just as adolescents require a broadening of the literacy landscape to include both formal and informal texts, they also require a more elaborate measure of students' motivation to read specific to these different contexts (Klauda, & Guthrie, 2015; Neugebauer, 2014; Orkin, Pott, Wolf, May, & Brand, 2018). Lack of motivation may result in long-term negative effects on society, as it affects the literacy level of the workforce with its resultant productivity related consequences (Crow, 2015).

Darrington and Dousay (2015, citing Daniels, 2010) have identified three factors included in a motivating learning and/ or reading environment. In such an environment, students feel they have (a) some control over their learning environment (autonomy), (b) value within the context of the class and school (relatedness), and (c) the skills needed to complete the task (competence).

Daniels (2010) also noted that in these situations, teachers can assist students to achieve active learning by encouraging them to use graphic symbols and other

media, in addition to writing, to transmit information. Teachers should also try to design motivating reading tasks for students.

Lam and Law (2007) also discussed a series of motivating characteristics. Similar to Darrington and Dousay (2015) and Daniels (2010), they noted that motivating learning and/or reading environments encourage student autonomy and task relevance, but they also recognized that the challenge of a task can also be motivating. If students feel they are being challenged by a reading task, yet they are still able to achieve that task, they will find the task more motivating. They also found that when students are given a reading task that uses problem solving to pique their curiosity, they were more motivated.

In addition to these characteristics, the nature of the task and the audience also can be motivating. Students are motivated when they read for real audiences (Magnifico, 2010; Zumbrunn, & Krause, 2012), and they are motivated when they feel that they are writing for a real purpose (Zumbrunn, & Krause, 2012). Therefore, the authenticity of the audience and the perceived purpose behind the reading or writing task are important motivating factors.

Further, two characteristics of classroom instruction that influence reading engagement and motivation are, the use of interesting texts and provision of social collaboration opportunities for students during reading (Bennett, Calderone, Dedrick, & Gunn, 2015). Researchers (Klauda, & Guthrie, 2015) have found that even when students are displaying elevated self-efficacy towards reading, the reading material needs to be interesting, valuable or relevant to their future endeavors.

Various reading strategies have proved to be motivational in assisting struggling readers to acquire important reading skills. According to Richardson (2016), reader's theatre can be used as a motivational and instructional strategy to improve under achieving students' reading skills. Allowing students, the autonomy to choose their own reading materials in school also proved to be motivational (Pecjac, & Peclaj, 2006).

Another factor that researchers find to be critical in reading acquisition is the teacher's motivational behavior. According to Moskovsky, Alrabai, Paolini, and Ratcheva (2013), teacher's motivational behaviors result in enhanced motivation in second language learners and even the most competent students would not perform at the highest level without this important element.

Since students' motivation is consistently related to academic achievement (Egilmez, & Engur, 2017; Klauda, & Guthrie, 2015; Louick, et al., 2016) direct motivational strategies are highly recommended for struggling adolescent learners. Motivation however has been found to change over time, with intrinsic motivation having marked decreases during the later elementary and into the middle school years (Wehmeyer, et al., 2017).

It is believed that teachers need to take purposeful and intentional actions in order to motivate upper elementary students to read, including: (a) focusing on knowledge goals, (b) tapping into children's interests, (c) ensuring coherence among instructional settings, and (d) engaging students in collaborative work (Robertson, et al., 2014).

Theories of Motivation

Self Determination Theory (SDT). Some of the most widely accepted theories of

motivation have their origins in the psychological theory of Self Determination (Deci, & Ryan, 1985). SDT is composed of two subtheories: the Cognitive Evaluation Theory and Organismic Evaluation Theory (Deci, & Ryan, 1985). Cognitive Evaluation Theory clarifies how autonomy, relatedness, and competence influence intrinsic motivation. Organismic Evaluation Theory explains how individuals ascribe value to activities on a continuum of regulations from intrinsic motivation to amotivation (Crow, 2015).

SDT clarifies, defines, and identifies three major types of motivation: amotivation, intrinsic motivation and extrinsic motivation.

Extrinsic motivation occurs when a person is motivated by external forces, such as being motivated to act when they are rewarded, praised, or threatened (Crow, 2015; Klauda, & Guthrie, 2015).

On the other hand, intrinsic motivation is generated from within and prompted by the individual's drive to do something they enjoy doing. Those who are intrinsically motivated complete the task or activity in order to achieve success, experience a sense of autonomy, and opérate in social contexts (Deci, & Ryan, 1985). Intrinsic motivation relates to the act of doing an activity purely because of the pleasure and satisfaction derived from the activity (Deci, & Ryan, 1985).

Amotivation on the contrary describes a total lack of motivation. Amotivated individuals either do not act or act without purpose or conviction (Crow, 2015; Vallerand, et al., 1992). "Student amotivation is a state of motivational apathy in which students harbor little or no reason to engage in classroom learning activities; it is a motivational deficit that is strongly associated with maladaptive functioning" (Cheon, & Reeve, 2015, p. 1) Amotivated students are therefore totally disengaged from the

learning experience, and demonstrate this through lack attention, distractedness, sleeping, or even absence from school or that particular subject (reading) or activity.

The self determination theory further focuses on the idea of the type and quality of a person's motivation as being more important than the amount of motivation (Deci, & Ryan, 2008). They identify two broadly defined facets of motivation as being distinct: autonomous motivation and controlled motivation (Deci, & Ryan, 2008). According to them behaviors are stimulated by both controlled and autonomous motivation.

Autonomous motivation consists of both intrinsic motivation and the type of extrinsic motivation in which an individual has "identified with an activity's value and ideally will have integrated it into their sense of self" (Deci, & Ryan, 2008 p. 182). Controlled motivation is identified by either external or extrinsic motivation and introjected motivation in which the individual takes ownership of the regulation of the activity. Introjected motivation describes the person's ego and the internalization of feelings of pride, remorse, or humiliation when engaging in a particular activity. This is usually generated when the individual is overcome by personal stress or strain (Ryan, & Deci, 2017).

Cognitive dissonance**.** The theory of cognitive dissonance (Festinger, 1962) has had a pivotal role in its contribution to motivation theory. It is evidenced by conflicts in an individual's mind that are unresolved but which motivates the person to action in resolving those conflicts. This causes the individual to either change their course of action or become more entrenched in their original cognition to the point of establishing justifications for it.

Other Theories. The role of motivation in education has long been a subject of research. Freud a psychoanalytical theorist, considered motivation as related to biological functions (Gambrell, Codling, & Palmer, 1996) while Skinner posited that experiences are fully responsible for shaping behavior, thoughts and motives of an individual. Maslow with his views about the individual's natural capacity for growth, which is enhanced by learning and his Heirarchy of Basic Needs, also made significant contributions to early motivation thought (Gambrell, et al., 1996).

According to Weiner (1972), attribution theory is very applicable to educational motivation. The assignment of blame or cause for an action can deternine a person's attitude to a similar situation in the future. At first the cause of failure may be attributed to self but after reflection, to something or someone else. This experience can be more beneficial if the real cause of the failure is identified.

Finally, the expectancy-value theory has also influenced learning and subsequently reading (Wigfield, & Eccles, 2000). This theory holds that "individuals' choice, persistence, and performance can be explained by their beliefs about how well they will do on the activity and the extent to which they value the activity" (Wigfield, & Eccles, 2000, p. 68).

In a discussion of the Motivation to Read Profile (MRP), Gambrell, et al. (1996), concluded that individuals will try to accomplish the goals that they percieve to be within the scope of their achievement as it relates to contexts and abilities.

Dimensions

As discussed previously in this research document, Deci and Ryan (1987) proposed four important dimensions based on their self-determination theory, covering competency, relatedness, autonomy, and interest.

According to Pecjac and Peclaj (2006), reading motivation is a multidimentional construct, with many factors associated with one's attitude to reading. These factors include: interest in reading, lack of self-efficacy, self-efficacy in oral reading, external motivation, interest and reading in social context, and involvement and immersion in reading. They also contend that these aspects of reading prompt individuals to initiate the act of reading and persist towards goal achievement.

Wigfield and Guthrie (1997) proposed 11 dimensions clustered within three categories: competence and self-efficacy beliefs; reading goals and social purpose for reading.

In the first category there are self-efficacy, challenge and work avoidance dimensions. Self- efficacy relates to one's conviction that they can successfully complete a task, which can have an enormous impact on reading motivation. Students who exhibit an elevated degree of confidence in their reading competence have a correspondingly higher level of intrinsic reading motivation (Pecjac, & Peclaj, 2006). Challenge relates to one's willingness to take on a difficult reading task, and work avoidance is identified by a student refusing to engage in the act of reading.

The second category involves reading goals and entails dimensions of intrinsic motivation: curiosity, involvement and importance. It also includes extrinsic motivation dimensions: recognition, grades and competion. A student who is intrinsically motivated

has an innate, built-in desire to learn and acquire knowledge that is not influenced by external forces (Pecjac, & Peclaj, 2006). These individuals exhibit a keen interest in what they read, and create a personal emotional attachment and value to what is read. “Readers’ engagement in reading will be greatly facilitated when they are intrinsically motivated to read” (Wigfield, & Guthrie, 1997, p. 421). For extrinsically motivated individuals the stimulation is derived from competition, the prospect of the challenge, and conquest of other readers. Their goal is not reading to acquire knowledge but to be recognized for their reading ability and high grades scored (Pecjac, & Peclaj, 2006). Goals can be categorized as performance goals and learning goals. Students with a performance goal orientation tend to highlight the positive aspects of their capabilities, while those with a learning goals mindset focus on mastery and improving proficiency in completing a given task (Wigfield, & Guthrie, 1997).

The third category is social purposes of reading, and consist of two dimensions: reasons for reading and compliance. Reading as a social activity can be shared with family and friends, while the compliance aspect is accomplished in order to meet important requirements such as class and out of school assignments.

Instrument

The instrument to be employed in the measurement of reading motivation for this study is the Motivation for Reading Questionaire-MQR (Wigfield, & Guthrie, 1997). The instrument was designed to determine how student’s Reading motivation impacted the amount of reading that was done by students and the breadth of their reading (Wigfield, & Guthrie, 1997). The initial factor analysis of the MRQ showed 11 distinct motivational dimensions. The sample of students used in Wigfield and Guthrie’s study was

rather small (100 students of fourth and fifth grade), therefore Baker and Wigfield (1999) repeated the analysis on a larger sample (371 fifth and sixth grade students) which confirmed the proposed structure. Further instrument validation (Watkins, & Coffey, 2004) performed on samples of younger students (328 and 735 students from third to fifth grade) also found a multidimensional, but different structure of reading motivation. They found 8 instead of 11 factors as follows: grades, compliance, involvement, social, competition, reading work avoidance, curiosity, recognition and efficacy. They showed the need for further questionnaire validation that would also contribute to clarification of the reading motivation construct.

Wigfield and Guthrie (1997) reported the reliabilities for all the aspects of the MRQ ranging from .43 to .81. Factor analyses conducted by Wigfield and Guthrie indicated evidence of construct validity supporting eleven factors for the 53-item revised MRQ in 4th and 5th grade students. Unrau and Schlackman (2006) also found support for the 11- factor model in a sample of 6th, 7th, and 8th grade students with a confirmatory fit index (CFI) of .90, suggesting a relatively good model fit.

The PACE Program

The PACE program as it is referred to in this document is part of the Accelerated Christian Education (ACE) curriculum. ACE, according to its website, is a Biblically - based education program founded in 1970 in Garland, Texas by Donald and Esther Howard. ACE's approach to the integration of the Bible and the academics was to divide content material/textbooks into smaller, more manageable workbooks called Packets of Accelerated Christian Education (PACEs). In addition to having the content in discreet packets, the program revisits previously taught concepts in each packet. This

repetition of concepts serves as reinforcement, solidifying students' concept acquisition. Each packet teaches a character education concept such as resourcefulness, honesty, thankfulness, friendship or kindness and includes relevant Bible references and activities for these skills. ACE serves more than 6,000 schools and homeschool families in many countries around the world.

According to the website, the "core curriculum provides students with academics, skill building, reading practice, character and wisdom training, and knowledge of God and His Word". The program begins with reading development at kindergarten and progresses through high school. Students who are more skilled may progress at a faster rate, completing grade levels in less than a year or may accelerate in the areas of their academic strengths. Less capable students are able to work at their levels of proficiency and proceed, as they are capable.

Each core subject consists of 12 PACEs per level. The core areas of instruction are: Math (K-12), Science (K-12), Social Studies (K-12), English (K-12), Literature and Creative Writing (2-8), Word Building (K-9) and Bible Reading (1-6).

On beginning the program, each student completes a diagnostic test, either paper-based or digitally, in the content area. The diagnostic test helps to identify academic weaknesses or content area learning gaps and prescribes a path to help students remediate their weaknesses. The diagnostic report provided to the teacher, lists the student's weaknesses, recommendations and performance level.

Typically, students work daily on one PACE in each subject at their individual performance level. PACEs allow students to work untimed at their own pace and proficiency level enabling them to develop mastery in each subject. The PACE is therefore

highly differentiated, meeting each student's academic needs both in reading and subject-specific content. As students explore academic themes, they are introduced to Biblical themes which assist in character development and Christian growth. Most students complete at least 70 PACEs per year, while maintaining academic balance by completing about the same number of PACEs in each assigned subject.

The reading skills are embedded in the Science, Social Studies and Math content areas and are taught explicitly through English, Bible Reading, Literature and Creative Writing. ACE prides itself for providing an individualized, self-paced curriculum with the additional benefit of character development for each student. ACE also provides additional programs (Music and Spanish) to support student learning and development.

Each PACE begins with the concepts, goals, Bible verse and character trait that students will learn. New vocabulary words are introduced into each lesson, which students learn the definitions for. Mastery is assured as they are repeatedly used and tested throughout the booklet. There are several checkups or quizzes throughout the PACE which are used to assess the student's mastery of each concept. Students are given the opportunity to review the material that is not fully grasped, by redoing incorrect items. At the end of each PACE there is a Self Test which is completed by the student. After successful completion of the self test, the final assessment in the PACE is the PACE test. Mastery of this final assessment allows the student to proceed to the subsequent sequentially numbered PACE or the PACE recommended from the diagnostics.

CHAPTER III

METHODOLOGY

Introduction

The objective of this study is to explore the relationship of causality that may exist between the variables of self-efficacy, motivation to read and participation in the PACE program, as like predictors of the reading proficiency of 5th and 6th grade students in private Christian schools in the Northeastern Region of the United States of America.

This chapter will explore the description of the methodology used during the investigation and addresses the design of the study, which includes: (a) the type of research, (b) the study population, (c) the sample, (d) the measuring instrument, (e) the null Hypotheses, (f) the data collection, and (g) the data analysis.

Type of Investigation

It is a quantitative investigation, because Ary, Jacobs, Sorensen, and Razavieh (2010) state that research is quantitative if it employs an objective system to collect data, with the consideration of numerical measurement, to clarify predetermined suppositions and hypotheses.

It is also explanatory, because it tries to identify the causal relationships between variables, both directly and indirectly, pretending in this way, to explain the interrelationships between the different variables.

The investigation is transversal (Ary, et al., 2010) since data was collected in a single moment to describe the variables and their interpretation to be analyzed. The administration of the instrument was in a single moment between the months of October to December of the year 2019.

This paper reports an investigation that was done ex post facto, also known as causal-comparative research. Ex post facto research, by its own design, investigates "the world as it is occurs naturally and explores phenomena that have already occurred" (Johnson, & Christensen, 2008, p. 257).

Kerlinger (1964) defined ex post facto research as

> that research in which the independent variable or variables have already occurred and in which the researcher starts with the observation of a dependent variable or variables. He then studies the independent variables in retrospect for their possible relations to and effects on the dependent variable or variables. (p. 360)

Tuckman (1972) defined the term ex post facto to be like an experiment, in which the researcher examines the effects of a naturalistically occurring treatment after that treatment has occurred rather than creating the treatment itself. The experimenter attempts to relate this after-the-fact treatment to an outcome or dependent measure. While the naturalistic or ex post factor experiment may not always be diagrammed from other designs, it is different in that the treatment is included by selection rather than manipulation. Explicative design is synonym to ex post facto.

The design of this research is ex post facto because the sample is not selected randomly, and it examines the effect of three independent variables that cannot be manipulated, on one dependent variable (Ary, et al., 2010). The possibility of a spurious

relationships is always present in ex post facto, in that there is a relationship in which one variable does not cause the other.

Population

In this study, the population consisted of 5th and 6th grade students from 49 private schools in the Northeastern region of the United States with a total population of 180 students. These schools do not participate in the PACE program and are considered non-PACE schools. The other subset of the population consists of 5th and 6th grade students from 20 schools with a total population of 65 students in both grades.

Sample

The type of sampling conducted in this investigation is non-probabilistic, directed, intentional and for convenience, where students are enrolled in private schools in the Northeastern United States. Participants were selected from private Christian schools in the Northeastern United States since only Christian schools participate in the PACE program. Forty-nine non-PACE and twenty PACE schools were contacted. Of this initial number, eight non-PACE and seven PACE schools consented to participate. The sample is 104 respondents.

Operationalization of the Variables

This section presents the conceptual, instrumental and operational definitions for each variable. Information is also provided regarding the origin of the scales and the dimensions of each construct.

Self-efficacy

Conceptual definition: According to Marghitan, Gavrila, & Tulbure (2017), self-

efficacy refers to the beliefs that students have about their capacities to realize their learning academic goals by marshalling their motivational, intellectual, and behavioral resources.

Instrumental definition: This instrument uses the scale (1) *really disagree*, (2) *kind of* d*isagree*, (3) *i am not sure*, (4) *kind of agree,* and (5) *really agree*. It is made up of thirty items grouped into three factors:

The talent factor is composed of thirteen items:

SETA02. I could get the best grades in class if I tried hard enough.

SETA06. I am a good science student.

SETA10. Sometimes I think an assignment is easy when the other kids think it is hard.

SETA11. I am a good social studies student.

SETA14. I am one of the best students in my class.

SETA16. My teacher thinks I am smart.

SETA18. I am a good math student.

SETA19. My classmates usually get better grades than I do.

SETA21. I usually understand my homework assignments.

SETA25. I am a good reading student.

SETA26. It is not hard for me to get good grades in school.

SETA27. I am smart

SETA30. When the teacher asks a question I usually know the answer even if the other kids don’t.

The context factor has thirteen items.

SECO03. Most of my classmates like to do reading because it is easy.

SECO04. I would get better grades if my teacher liked me better.

SECO07. I will graduate from high school.

SECO08. I go to a good school.

SECO12. Adults who have good jobs probably were good students when they were kids.

SECO13. When I am old enough I will go to college.

SECO15. No one cares if I do well in school.

SECO17. It is important to go to high school.

SECO20. What I learn in school is not important.

SECO23. It does not matter if I do well in school.

SECO24. Kids who get better grades than I do get more help from the teacher than I do.

SECO28. I will quit school as soon as I can.

SECO29. Teachers like kids even if they do not always make good grades.

The effort aspect has four items.

SEEF01. I work hard in school.

SEEF05. Most of my classmates work harder on their homework than I do.

SEEF09. I always get good grades when I try hard.

SEEF22. I usually do not get good grades in math because it is too hard.

Operational definition: First, the responses of the inverse items were recoded, which are: SETA19, SECO04, SECO15, SECO20, SECO23, SECO24, SECO28, SEEF05, SEEF22. Based on the responses, the arithmetic mean of the items that make

up each factor was calculated, as well as the arithmetic mean of all the items indicating self-efficacy. A higher arithmetic mean is considered a higher level of self-efficacy. The variable is considered metric.

References: The Self-efficacy instrument is a modification of the Morgan-Jinks Student Efficacy Scale (MJSES), which was designed to elicit information about student self-efficacy in the elementary grades. This instrument employed a five interval Likert Scale, rather than the four-interval scale administered by the designers. The responses used were: really disagree, kind of disagree, I am not sure, kind of agree, and really agree. The scale utilized in this research comprised of thirty items as against thirty-four in the original scale, items related to self-reported grades were omitted. Since the focus of this study is to gather information related to students' reading proficiency, the instrument was modified accordingly. According to Jinks and Morgan (1999), the instrument was designed to "provide insight into elementary children's perceptions of their self-efficacy in the performance of academic activities" (p. 227) and based on the results of subsequent research it has done so.

The self-efficacy scale has an overall reliability coefficient of .82. The subscale alphas were .78 for talent, .70 for context, and .66 for effort (Jinks, & Morgan, 1999).

Talent relates to the student's perception or belief in their innate or natural abilities as they relate to a particular task, academic subject area, or activity. If a student perceives herself as being talented in a particular subject, then she will respond in the affirmative or vice versa.

The context factor relates to the students' general perception of the learning environment and how it impacts his /her performance.

Effort relates to how persistent or determined a student is in his or her approach to completing a task or activity even in the face of difficulty. It also examines how vigorously and willingly one takes on a challenge. It evokes ideas of how enthusiastically students tackle difficult academic activities and are prepared to 'work hard'.

Motivation to Read

Conceptual definition: Guthrie and Winfred (cited in Herzig, 2014) define motivation as: "the cluster of personal goals, values, and beliefs with regard to topics, processes, and outcomes of reading that an individual possesses" (p. 27).

Instrumental definition: The instrument uses the scale (1) *very different from me* (2) *a little different from me* (3) *I am not sure* (4) *a little like me* and (5) *a lot different from me.* It is made up of 53 items grouped into eleven factors.

The curiosity factor consists of seven items:

MRCU04. I would get better grades if my teacher liked me better.

MRCU09. I have favorite subjects that I like to read about.

MRCU10. Sometimes I think an assignment is easy when the other kids in class think it is hard.

MRCU14. I like reading books about people in different countries.

MRCU19. I read to learn nnew information about topics that interest me.

MRCU25. I am a good reading student.

MRCU29. I read about my hobbies to learn more about them.

The competition factor consists of seven items:

MRCM01. I like being the best at reading.

MRCM18. My parents often tell me what a good job I am doing in reading.

MRCM41. I am willing to work hard to read better than my friends.

MRCM44. It is important to see my name on a list of good readers.

MRCM47. I am happy when someone recognizes my reading.

MRCM49. I like being the only one who knows an answer.

MRCM52. I like to finish my reading before other students.

The compliance factor has five items:

MRCO23. I read because I have to.

MRCO34. I do as little school work as possible in reading.

MRCO36. Finishing every reading assignment is very important to me

MRCO46. I always try to finish my reading on time.

MRCO51. I always do my reading work exactly how the teacher wants.

The importance factor consists of two items:

MRIM17. It is very important to me to be a good reader.

MRIM27. In comparison to other activities I do, it is very important for me to me to be a good reader.

The recognition factor consists of three items:

MRRN28. I like having the teacher say I read well.

MRRN37. My friends sometimes tell me I am a good reader.

MRRN43. I like to get compliments for my reading.

The social reasons for reading factor consists of seven items:

MRSO11. I visit the library often with my family.

MRSO26. I often read to my brother or sister.

MRSO31. My friends and I like to trade things to read.

MRSO39. I like to help my friend with my school work in reading.

MRSO42. I sometimes read to my parents.

MRSO45. I talk to my friends about what I am reading.

MRSO48. I like to tell my family about what I am reading.

The work avoidance factor consists of four items

MRWA13. I don't like reading something when the wirds are difficult.

MRWA24. I don't like vocabulary questions.

MRWA32. Complicated stories are no fun to read.

MRWA40. I don't like it when there are too many people in the story.

The challenge factor consists of five items:

MRRC2. I like it when the questions in the book make me think.

MRRC5. I like hard challenging books.

MRRC8. If a book is interesting I don't care how hard it is to read.

MRRC16. I usually learn difficult things by reading.

MRRC20. If the project is interesting I can read difficult material.

The efficacy factor is composed of three items:

MRRE7. I know that I will do well in reading next year.

MRRE15. I am a good reader.

MRRE21. I learn more from reading than most students in class.

The reading for grades factor is composed of four items:

MRRG3. I read to improve my grades.

MRRG38. Grades are a good way to see how well you are doing in reading.

MRRG50. I look forward to finding out my reading grade.

MRRG53. My parents ask me about my reading grade.

The involvement factor consists of six items:

MRRI6. I enjoy a long involved story or fiction book

MRRI12. I make pictures in my mind when I read.

MRRI22. I read stories about fantasy and make believe.

MRRI30. I like mysteries.

MRRI33. I read a lot of adventure stories

MRRI35. I feel like I make friends with people in good books.

Operational definition: First, the responses of the inverse items were recoded, which was MRCO34. Based on the responses, the arithmetic mean of the items that make up each factor was calculated, as well as the arithmetic mean of all the items indicating motivation to read. A higher arithmetic mean is considered a higher level of motivation to read. The variable is considered metric.

References: The motivation to read instrument is a modified version of the Motivations for Reading Questionnaire (MRQ). The Motivations for Reading Questionnaire (MRQ) was developed by Dr. Allan Wigfield and Dr. John Guthrie in 1997. It has been used by different researchers, with elementary students in different regions of the United States ranging from grades 3 to 8, from 1997 to 2006 (Wigfield, & Guthrie, 1997). According to Wigfield and Guthrie (1997) the reliabilities for the entire 53 question instrument ranged from .43 to .81.

As it relates to validity, they confirm that based on factor analyses conducted on the instrument when administered to 4th and 5th grade students there was evidence of low to moderate construct validity. According to the developers, Unrau and Schlackman

(2006) also used the 11-factor model in a sample of 6th, 7th, and 8th grade students with a confirmatory fit index (CFI) of .90 (Wigfield, & Guthrie, 1997).

The construct Motivation to read has eleven factors. These are:

1. Reading Efficacy: Relates to students' perceptions about their capabilities in completing given reading tasks. Students' self- efficacy perceptions for different activities, exert a significant influence on choice of activity, inclination to exert effort, and determination to see a task through to its completion (Bandura, 1977). According to Wigfield and Guthrie 1997, children who are more confident about their reading abilities and are more efficacious, are more likely to read.

2. Reading Challenge*:* is associated with reading self- efficacy, as these students relished the idea of achieving a high level of competency in the complex concepts from the material being read (Wigfield, & Guthrie, 1997; Schiefele, & Schaffner, 2016).

3. Reading Curiosity: students read to learn more about their topic of interest, this is an intrinsically motivated dimension which results in children reading more and naturally find pleasure in reading. This aspect of reading motivation is said to positively influence academic performance (Schiefele, & Schaffner, 2016).

4. Reading Involvement: To experience positive emotions from reading a book or article about a favorite topic; getting lost in a book and vividly imagining the scenes.

5. Importance of Reading: reading can be perceived as important from a personal perspective or in order to achieve predetermined academic goals. A student my value the importance of reading in itself as a condition for learning, or value reading as a competence that allows him or her to enjoy a book or understand a concept (Schiefele, & Schaffner, 2016).

6. Reading Work Avoidance: this involves making every effort to avoid reading. Students will attempt to get the least challenging assignments, avoid homework, and try to outsmart the teacher in order to evade reading tasks (Nicholls, Cheung, Lauer, & Patashnick, 1989).

7. Competition in Reading: to outperform one's classmates in school in reading. The student strives to always at the top of the class in reading in comparison to his/her classmates.

8. Recognition for Reading: to get compliment or tangible reward for frequent reading from teacher or parent. This is considered an extrinsic reading motivation factor since reading goals are directly linked to rewards.

9. Reading for Grades: to improve grades or performance, this is considered an extrinsically motivated activity as it is associated with external rewards or praise.

10. Social Reasons for Reading: reading and sharing what is read with friends and family. This aspect includes reading for younger siblings and exchanging or sharing books with friends.

11. Compliance: Reading as a requirement of the school or the teacher. According to Wigfield and Guthrie 1997, students who score at a high level in this factor, will only read exactly what is assigned by the teacher and no more. The instrument used is shown in Appendix A.

Reading Proficiency

Conceptual definition: Flores and Duran (2016), citing a previous study by PISA (Organization for Economic Cooperation and Development, 2009), define reading competence or proficiency as the ability to understand and use written texts in order to

achieve one's own objectives and to develop knowledge and the potential to participate in society by means of reflection and involvement as a reader.

Instrumental definition: The instrument utilized in evaluating the reading proficiency of students is found in section 1 of the questionnaire (see Appendix B).

Operational definition: These are the correct answers to the questions in the reading proficiency instrument which was comprised of 20 questions: Answers to the comprehension passage 'Saving Snow Leopards': 1. D, 2. A, 3. B, 4. B, 5. D, and 6. A. Answers to comprehension passage 'Exerpt from Wooly Puff Rescue': 1. A, 2. D, 3. D, 4. A, 5. C, 6. B, and 7. C. Answers to comprehension passage 'Exerpts from Last Regrets':1.B, 2.B, 3.A, 4.C, 5.C, 6.D, and 7. D.

References: The reading proficiency instrument is a modification of sections of the language arts section of the New York State Test 2018 which is publicly available on their website. Comprehension passages and questions from the grade four, five and six tests were included in order to assess the students' reading proficiency, utilizing material previously leveled for these grades.

The New York State tests are developed and administered by the Office of State Assessment (OSA), the assessment department of the New York State Education Department (NYSED). These tests are aligned with the New York State Standards and Core Curriculum and conform to federal mandates. They are administered to students in kindergarten through twelvth grade in all schools in the state.

Participation in PACE Program

Conceptual definition: The students who participated in this study were identified based on their participation in the PACE program. Students who participated in the

PACE program were enrolled in the following schools: Hartford SDA Area School, Springfield SDA Junior Academy, Warren SDA School, Bible Truth Ministries Academy, Light House Christian Academy, Berea SDA Academy.

Operational definition: The following is a listing of the number of participating students in PACE (one coded) and non-PACE (zero coded) schools. This variable was considered dummy.

Students from the following PACE schools participated in this study: Hartford SDA Area School (*n* = 8), Springfield SDA Junior Academy (*n* = 7), Warren SDA School (*n* = 1), Bible Truth Ministries Academy (*n* = 6), Light House Christian Academy (*n* = 1), Berea SDA Academy (*n* = 4), and Southshore SDA School (*n* = 4).

Students from the following non-PACE schools participated in this study: South Lancaster Academy (*n* = 22), Worcester SDA School (*n* = 8), Laurel Oaks SDA School (*n* = 7), Fairfield County SDA School (*n* = 4), Westchester Area School (*n* = 15), Linden SDA School (*n* = 9), Hanson Place SDA School (*n* = 5), and Bethel SDA School (*n* = 3).

Null Hypothesis

Self-efficacy, motivation to read, and participation in the PACE program, are not like predictors of reading proficiency of 5th and 6th[h] grade students in the Northeastern United States.

A structural equation model was used to test the hypothesis. The first step that was done was to determine that the goodness of fit was acceptable. To do this, it should meet at least three of the following five criteria: nonsignificant chi square ($p > .05$), relative chi square less than 3, GFI and CFI greater than .9 and RMSEA less than .08.

Once the model was accepted, the levels of significance were observed in the parameters corresponding to the predictive model, in such a way that those that were significant were accepted ($p < .05$).

Data Collection and Access to Respondents

The data collection was carried out in the following ways:

1. The superintendent of the schools for the Northeastern Conference and the Southern New England Conference were contacted and the directors sent requests out to the schools for the principals to allow students to participate.

2. The principals of the schools were contacted and permission requested to conduct the study in their schools. The permissions were sent by the school to the parents of the children involved in the study.

3. The schools consented to the implementation of the instrument, and the researcher arranged to visit and direct the teachers on the procedures. All fifth grade students were able to complete the questionnaire in one day. The researcher returned to the school and collected them. Those that the researcher was unable to visit were contacted by phone, and email and the questionnaires mailed to them. These were completed and returned to the researcher by mail.

Data Analysis

The database was formed in the SPSS for windows in version 26, in order to perform the analysis of the variables in that program. Subsequently, the scores for each of the variables were obtained, following the process indicated in the operationalization of the variables. After having completed the database, descriptive statistics (measures of central tendency, variability, normality and detection of atypical and absent data)

were used to clean the database and obtain demographic information, as well as to evaluate the behavior of the main variables.

CHAPTER IV

ANALYSIS OF THE RESULTS

Introduction

The research focused on the impact of PACE program, self-efficacy, and motivation on reading proficiency in grade 5th and 6th students in private schools in the Northeastern United States. From a total of 65 students in PACE schools, 31 responses were received. The students who completed the survey from non-PACE schools were 73. The surveys were distributed to each school via mail or by hand. The data was cleaned up and the sample of 104 was retained.

Demographic Description

In the following section, the demographic results were collected. This information included the gender and type of curriculum (PACE or non- PACE)

The gender distribution of the group investigated revealed that fifty-three students or 51.0% were girls, while 51 or 49.0% were boys.

The distribution of students with participation in the PACE program was as follows: 29.8% (*n* = 31) PACE program and 70.2% (*n* = 73) did not participate in the program. Most students did not participate in the program. In Appendix C are the backup tables.

Validity and Reliability

The unidimensional analysis procedure was used to evaluate the validity of the factors of the constructs reading proficiency, motivation to read, and reading self-efficacy. The results of the validation of each variable are presented in the following paragraphs under the corresponding constructs. The statistical tests of the unidimensional analysis for the constructs are presented below. In Appendix D are the backup tables.

Motivation to Read

The unidimensional analysis procedure was used to analyze the validity of motivation to read. The instrument for motivation to read was constructed to capture data reflecting 11 dimensions: reading efficacy, reading challenge, reading for grades, reading curiosity, reading involvement, compliance, importance of reading, reading work avoidance, competition in reading, recognition for reading, and social reasons for reading. The factorial analysis procedure was applied to each of these factors to analyze the validity of individual dimensions.

For the validation of the constructs, the analysis by factor was used, trying to show the unidimensionality of each one. This process was used based on the low levels of sample adjustment (KMO), which would generate unstable groupings of the items, if the factor analysis was by construct.

Competition in Reading

The first factor analyzed was Competition in Reading labeled CM. The sample adequacy measure KMO was found to be .745. As for the Bartlett's test of Sphericity the results ($X^2 = 155.841$, $df = 21$, $p = .000$) is significant.

In the analysis of the extraction statistics, it was found that the communality values (Com_{min} = .239; Com_{max} = .559) with all the values except 1 being over .300. In relation to the total variance explained, for one factor a confirmatory analysis was carried out with seven items, explaining 41.102% of the total variance. When the extraction method principal component analysis was applied the component values (factor loadings) produced ranged from a minimum of .489 to a maximum of .748. The Cronbach's Alpha test of reliability was administered to the instrument analyzing the factor Competition in Reading. The alpha was .755.

Compliance

The second factor analyzed was compliance which was labeled CO. The sample adequacy measure KMO was found to be .617. As for the Bartlett's test of Sphericity the results (X^2 = 66.882, *df* = 6, *p* = .000) is significant.

For the extraction statistics by main components, it was found that for the communality values (Com_{min} = .115; Com_{max} = .747), with one value being below.300. In relation to the total variance explained, a confirmatory analysis was carried out with four items, explaining 48.450% of the total variance. When the extraction method principal component analysis was applied the component values (factor loadings) produced ranged from a minimum of .339 to a maximum of .846. The Cronbach's Alpha test of reliability was administered to the factor Compliance the alpha was .559. Item 23 was removed because it was displaying negative correlations with the other items and the factor loadings on the first factor were being depressed. Item 34 was recoded as it was recording negative readings.

Importance

The third factor to be analyzed was Importance (IM), signifying the importance of reading. The sample adequacy measure KMO was .500 and for the Bartlett's test of Sphericity the results (X^2 = 35.097, *df* = 1, *p* = .000) is significant. For the extraction statistics by main components, it was found that the communality values (Com = .770) are satisfactory.

In relation to the total variance explained, a confirmatory analysis was carried out with two items, explaining 77.034% of the total variance. When the extraction method principal component analysis was applied the component values (factor loadings) produced was .878 for both items. The Cronbach's Alpha test of reliability was administered to the instrument analyzing the factor Importance the alpha was .722.

Reading Challenge

The fourth factor analyzed was Reading Challenge (RC), and consists of five items. The sample adequacy measure KMO was .770 and for the Bartlett's test of Sphericity the results (X^2 = 83.975, *df* = 10, *p* = .000) is significant. For the extraction statistics by main components, it was found that the communality values (Com_{min} = .349; Com_{max} = .566) are satisfactory.

In relation to the total variance explained, a confirmatory analysis was carried out with five items, explaining 46.811% of the total variance. When the extraction method principal component analysis was applied, the component values (factor loadings) produced ranged from .591 to .753. The Cronbach's Alpha test of reliability was administered to the instrument analyzing the factor Reading Challenge. The alpha was .715.

Reading Efficacy

The fifth factor consists of three items and it is labelled RE. These have high load factors in the column, ranging from .708 to .741. The sample adequacy measure KMO was .626 and for the Bartlett's test of Sphericity the results (X^2 =24.474, *df* = 3, *p* = .000) is significant. For the extraction statistics by main components, it was found that the communality values (Com_{min} = .502; Com_{max} = .554) are satisfactory.

In relation to the total variance explained, a confirmatory analysis was carried out with five items, explaining 53.221% of the total variance. When the extraction method principal component analysis was applied the component values (factor loadings) produced ranged from .708 to .741. The Cronbach's alpha test of reliability was administered to the instrument analyzing the factor reading efficacy the alpha was .556.

Reading for Grades

The sixth factor consists of four items and it is labelled RG. The sample adequacy measure KMO was .626 and for the Bartlett's test of Sphericity the results (X^2 =72.649, *df* = 6, *p* = .000) is significant. For the extraction statistics by main components, it was found that the communality values (Com_{min} = .365; Com_{max} = .561) are satisfactory.

In relation to the total variance explained, a confirmatory analysis was carried out with four items, explaining 52.970% of the total variance. When the extraction method principal component analysis was applied the component values (factor loadings) produced ranged from .604 to .798. The Cronbach's alpha test of reliability was administered to the instrument analyzing the construct reading for grades. The alpha was .695.

Reading Involvement

The seventh factor consists of six items and it is labelled RI. The sample adequacy measure KMO was .739 and for the Bartlett's test of Sphericity the results (X^2 =100.720, *df* = 15, *p* = .000) is significant. For the extraction statistics by main components, it was found that for the communality values (Com_{min} = .243; Com_{max} = .634). Items RI35 and RI12 both recorded communality values of .243 and .294 respectively, however, although the values were less than .300 they were not removed as this would not have improved the factor loadings, or the reliability of the factor.

In relation to the total variance explained, a confirmatory analysis was carried out with six items, explaining 40.981% of the total variance. When the extraction method principal component analysis was applied the component values (factor loadings), produced ranged from .493 to .796. The Cronbach's alpha test of reliability was administered to the instrument analyzing the factor reading involvement the alpha was .705.

Recognition for Reading

The eighth factor consists of three items and it is labelled RN. The sample adequacy measure KMO was .618 and for the Bartlett's test of Sphericity the results (X^2 =55.563, *df* = 3, *p* = .000) is significant. For the extraction statistics by main components, it was found that the communality values (Com_{min} = .453; Com_{max} = .720) are satisfactory.

In relation to the total variance explained, a confirmatory analysis was carried out with five items, explaining 61.306% of the total variance. When the extraction

method principal component analysis was applied the component, values produced ranged from .673 to .848. The Cronbach's alpha test of reliability was administered to instrument analyzing the factor recognition for reading the alpha was .676.

Social Reasons for Reading

The ninth factor consists of seven items and it is labelled Social (SO). The sample adequacy measure KMO was .759 and for the Bartlett's test of Sphericity the results (X^2 = 125.899, *df* = 21, *p* = .000) is significant. For the extraction statistics by main components, it was found that for the communality values (Com_{min} = .218; Com_{max} = .463). Item number SO26 "I often read to my brother or sister", recorded a communality value of .218 but was not discarded as it was deemed significant to the factor.

In relation to the total variance explained, a confirmatory analysis was carried out with seven items, explaining 38.576% of the total variance. When the extraction method principal component analysis was applied the component values (factor loadings) produced ranged from .467 to .681. The Cronbach's alpha test of reliability was administered to the instrument analyzing the factor social reasons for reading the alpha was .724.

Work Avoidance

The tenth factor consists of three items and it is labelled WA. The sample adequacy measure KMO was .549 and for the Bartlett's test of Sphericity the results (X^2 = 30.143, *df* = 3, *p* = .000) is significant. For the extraction statistics by main components, it was found that for the communality values (Com_{min} = .291; Com_{max} = .695). Item number WA40 was removed as it was producing undesirable readings that would affect

the reliability of the factor and ultimately the instrument. Item number WA24 recorded a value of .291, but was not removed as it was deemed significant to the factor.

In relation to the total variance explained, a confirmatory analysis was carried out with three items, explaining 52.958% of the total variance. When the extraction method principal component analysis was applied the component values (factor loadings) produced ranged from .540 to .834. The Cronbach's alpha test of reliability was administered to the instrument analyzing the factor work avoidance the alpha was .522.

Reading Curiosity

The eleventh factor consists of four items and it is labelled CU. The sample adequacy measure KMO was .703 and the Bartlett's test of Sphericity the results (X^2 = 40.240, *df* = 6, *p* = .000) is significant. For the extraction statistics by main components, it was found that the communality values (Com_{min} = .449; Com_{max} = .488) are satisfactory.

In relation to the total variance explained, a confirmatory analysis was carried out with four items, explaining 46.466% of the total variance. When the extraction method principal component analysis was applied the component values (factor loadings) produced ranged from .670 to .698. The Cronbach's alpha test of reliability was administered to the instrument analyzing the factor reading curiosity the alpha was .612.

Self-efficacy

Effort

The first factor consists of four items and it is labelled EF. The sample adequacy

measure KMO was .567 and for the Bartlett's test of Sphericity the results (X^2 = 30.320, *df* = 6, *p* = .000) is significant. For the extraction statistics by main components, it was found that for the communality values (Com_{min} = .279; Com_{max} = .484). Item number EF9: "I always get good grades when I try hard". Recorded a value of .279 but was retained as it was deemed significant to the factor. Items EF5 and EF22 were recoded as they reported initially as negative.

In relation to the total variance explained, a confirmatory analysis was carried out with five items, explaining 40.362% of the total variance. When the extraction method principal component analysis was applied the component values (factor loadings) produced ranged from .528 to .695. The Cronbach's alpha test of reliability was administered to the instrument analyzing the factor effort, the alpha was .498.

Talent

The second factor consists of twelve items and it is labelled Talent (TA). The sample adequacy measure KMO was .812 and the Bartlett's test of Sphericity the results (X^2 = 295.774, *df* = 66, *p* = .000) is significant. For the extraction statistics by main components, it was found that for the communality values (Com_{min} = .168; Com_{max} = .468). Item TA6, was removed as they it adversely affecting the factor loadings and consequently the reliability, the factor and the instrument. Five items produced scores below .300 but were retained as they were considered significant to the factor.

In relation to the total variance explained, a confirmatory analysis was carried out with twelve items, explaining 34.201% of the total variance. When the extraction method principal component analysis was applied, the component values produced ranged from .410 to .684. The Cronbach's alpha test of reliability was administered to

the instrument analyzing the factor talent, the alpha was .816.

Context

The third factor consists of nine items and it is labelled Context (CO). The sample adequacy measure KMO was .786 and for the Bartlett's test of Sphericity the results (X^2 = 228.713, *df* = 36, *p* = .000) is significant. For the extraction statistics by main components, it was found that for the communality values (Com_{min} = .173; Com_{max} = .612). Item numbers CO8, CO3, CO12, and CO29 were removed as they were adversely affecting the factor loadings and consequently the reliability of the instrument. Item number CO24 recorded a value of .115 but was retained as it was seen as significant to the factor.

In relation to the total variance explained, a confirmatory analysis was carried out with five items, explaining 36.218% of the total variance. When the extraction method principal component analysis was applied the component values (factor loadings) produced ranged from .410 to .782. The Cronbach's alpha test of reliability was administered to the instrument analyzing the construct context, the alpha was .764.

Descriptive about Constructs

Reading Proficiency

The Cronbach's Alpha test of reliability was administered to the instrument analyzing the construct reading proficiency, the alpha was .722. Table 1 shows the descriptive for the reading proficiency construct. The indicators with the smallest values are: Which sentence best expresses the theme of the story? (*M* = .20, *SD* = .403), which statement best states a theme of the story? (*M* = .23, *SD* = .423), which detail signals

a change in the story? (*M* = .37, *SD* = .486). In Appendix E are the backup tables.

Table 1

Mean and Standard Deviation for Items in Reading Proficiency

Item	M	SD
a1 What does the word “conservation” mean as it is used in paragraph 6?	.68	.468
a2 How does paragraph 9 connect to paragraph 6 in the article?	.55	.500
a3 Which idea best explains why Dr. McCarthy and his co-workers traveled to Kyrgyzstan?	.59	.495
a4 Which idea from the article best supports the main idea?	.70	.460
a5 How is the article mainly organized?	.54	.501
a6 How does the table at the end of “Saving Snow Leopards” support the main idea…	.63	.484
a7 In paragraph 2, what does the sentence “They look just like fleecy rainbows” suggest…	.89	.309
a8 What does the word “welt” mean as used in paragraph 9?	.59	.495
a9 Read this sentence from paragraph 14. “His smile faded as he went on”. What does…?	.58	.496
a10 Read this sentence from paragraph 15. “At least they’re not poison,” Wendy said…	.80	.403
a11 How does the setting of the story affect what happens to the Wooly –Puff?	.48	.502
a12 What does the phrase “smell funny” mean as it is used in paragraph 15?	.85	.363
a13 Which statement best states a theme of the story?	.23	.423
a14 What does paragraph 5 reveal about Paige?	.58	.496
a15 How do paragraphs 8 and 10 develop the plot of the story?	.38	.486
a16 Read this sentence from paragraph 14. Across from the kitchenette stood the…	.73	.446
a17 Which detail signals a change in the story?	.37	.486
a18 How does the author most develop Grandpa’s point of view in the story?	.47	.502
a19 Which detail would be most important to include in a summary of the story?(This…	.60	.493
a20 Which sentence best expresses the theme of the story?	.20	.403

Some items with strong values are: In paragraph 2, what does the sentence ““They look just like fleecy rainbows” suggest about the flowers? (*M* = .89, *SD* = .309); item a12: What does the phrase “smell funny” mean as it is used in paragraph 15? (*M* = .85, *SD* = .363). Read this sentence from paragraph 15. “At least they’re not poison,” Wendy said after professor Raglin had left. What does the sentence suggest about Wendy? (*M* = .80, *SD* = .403).

Figure 1 shows that the overall mean for reading proficiency (comprehension) was 11.43, with a standard deviation of 3.699 and a skewness of 0.076. This skewness shows that distribution tends to be normal. Additionally, the distribution had a kurtosis

value of -0.600 indicating that distribution tends to be normal. This causes the resulting distributions curve to be almost symmetric but peaked.

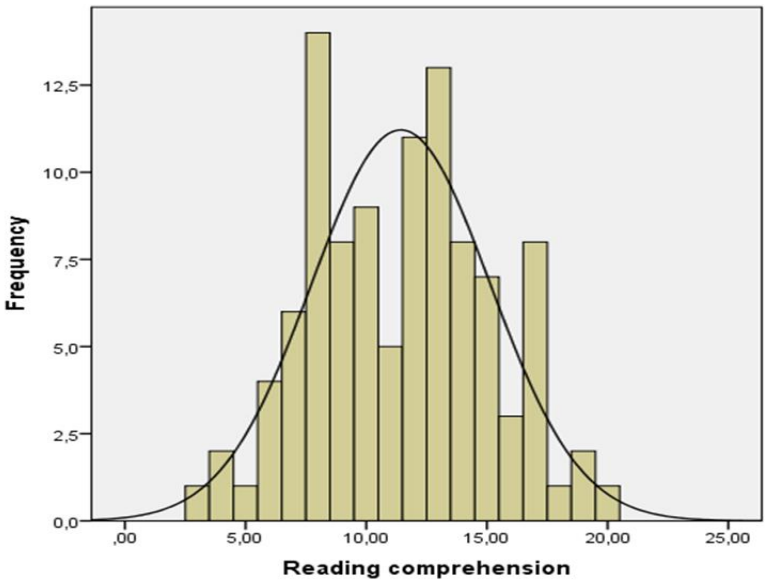


Figure 1. Histogram with Normal Curve for Reading Proficiency.

Reading Motivation

Reading Challenge

The descriptive for the reading challenge factor. The indicators with the smallest values are I like it when the questions in the book make me think (*M* = 2.90, *SD* = 1.326), I like hard challenging books (*M* = 3.00, *SD* = 1.154), and if the project is interesting I can read different material (*M* = 3.29, *SD* = 1.256) (see Table 2).

The overall mean for reading challenge was 3.31 with a standard deviation of 0.89 and a skewness of -0.354. Additionally, the distribution had a kurtosis value of -0.673 indicating that the responses were spread across the full range of values causing the distribution curve to be approximately symmetric, wide and low.

Table 2

Mean and Standard Deviation for Reading Challenge

Items	*M*	*SD*
bRC8 If a book is interesting I don't care how hard it is to read.	3.79	1.121
bRC16 I usually learn different things by reading.	3.56	1.261
bRC20 If the project is interesting I can read different material.	3.29	1.259
bRC5 I like hard challenging books.	3.00	1.415
bRC2 I like it when the questions in the book make me think.	2.90	1.326

Reading Efficacy

Table 3 shows the descriptive for reading efficacy. The indicators with the smallest values are: I learn more from reading than most students in the class (*M* = 2.22, *SD* = 1.233), and I know that I will do well in reading next year (*M* = 3.82, *SD* = 1.022).

The overall mean for reading efficacy was 3.52, with a standard deviation of 0.85, and a skewness of -0.290. Additionally, the distribution had a kurtosis value of -0.386 indicating that most the responses were evenly distributed causing the distribution curve to be evenly balanced.

Table 3

Mean and Standard Deviation for Reading Efficacy

Item	*M*	SD
bRE15 I am a good reader.	3.85	1.237
bRE7 I know that I will do well in reading next year.	3.82	1.022
bRE21 I learn more from reading than most students in the class.	2.88	1.233

Reading for Grades

Table 4 shows the descriptive for the factor reading for grades. The indicators with the smallest values are: My parents ask me about my reading grades (*M* = 3.40, *SD* = 1.472), I read to improve my grades (*M* = 3.45, *SD* = 1.269), and I look forward to find out my reading grade (*M* = 3.69, *SD* = 1.394).

The overall mean for reading for grades was 3.576, with a standard deviation of .980, and a skewness of -0.485. Additionally, the distribution had a kurtosis value of -0.338 indicating that most the responses were clustered around the same values causing the distribution curve to be close to normal.

Table 4

Mean and Standard Deviation for Reading for Grades

Item	*M*	*SD*
bRG38 Grades are a good way to see how well you are doing in reading	3.76	1.281
bRG50 I look forward to finding my reading grade.	3.69	1.394
bRG3 I read to improve my grades.	3.45	1.269
bRG53 My parents ask me about my reading grade.	3.40	1.472

Reading Involvement

Table 5 shows the descriptive for reading involvement. The indicators with the smallest values are: I feel like I make friends with people in good books (*M* = 2.56, *SD* = 1.447), I read a lot of adventure stories (*M* = 3.47, *SD* = 1.468), and I enjoy a long involved story or fiction book (*M* = 3.70, *SD* = 1.269).

Table 5

Mean and Standard Deviation for Items in Reading Involvement

Items	*M*	*SD*
bRI12 I make pictures in my mind when I read.	4.06	1.105
bRI22 I read stories about fantasy and make believe.	3.90	1.355
bRI30 I like mysteries.	3.86	1.389
bRI6 I enjoy a long involved story or fiction book.	3.70	1.269
bRI33 I read a lot of adventure stories.	3.47	1.468
bRI35 I feel like I make friends with people in good books.	2.56	1.447

The overall mean for reading involvement was 3.591 with a standard deviation of 0.854 and a skewness of -0.571. This skewness shows that the majority of the responses fell above the central value of 3.00 indicating that most survey participants had a positive response towards reading involvement. Additionally, the distribution had a Kurtosis value of -.008 indicating that most the responses were clustered in a normal distribution with the curve being almost symmetric.

Reading Curiosity

Table 6 shows the descriptive for reading curiosity. The indicators with the smallest values are: I like reading books about people in different countries (*M* = 3.15, *SD* = 1.385), I read about my hobbies to learn more about them (*M* = 3.18, *SD* = 1.519), and I have favorite subjects that I like to read about (*M* = 3.37, *SD* = 1.488).

The overall mean for reading curiosity was 3.324 with a standard deviation of 0.953 and a skewness of -0.282. This skewness shows that the majority of the responses fell about the central value of 3.00 indicating that most survey participants had a neutral response towards reading curiosity. Additionally, the distribution had a kurtosis value of -.306 indicating that most the responses were clustered around the same

values causing the distribution curve to be wide and low, but symmetric.

Competition

Table 7 shows the descriptive for competition. The indicators with the smallest values are: I am willing to work hard to read better than my friends (*M* = 2.92, *SD* = 1.466), my parents often tell me what a good job I am doing in reading (*M* = 3.23, *SD* = 1.381), I like to finish my reading before other students (*M* = 3.29, *SD* = 1.259), and It is important for me to see my name on a list of good readers (*M* = 3.30, *SD* = 1.467).

Table 6

Mean and Standard Deviation for Items in Reading Curiosity

Items	*M*	*SD*
bCU19 I read to learn new information about topics that interest me.	3.60	1.195
bCU9 I have favorite subjects that I like to read about.	3.37	1.488
bCU14 I like reading books about people in different countries.	3.15	1.385
bCU29 I read about hobbies to learn more about them.	3.18	1.519

The overall mean for competition was 3.274 with a standard deviation of 0.867 and a skewness of -0.217. This skewness shows that the majority of the responses fell below the central value of 3.00 indicating that most survey participants had a negative response towards competition. Additionally, the distribution had a kurtosis value of -0.375 indicating that most of the responses were clustered around the same values causing the distribution curve to be evenly balanced and low.

Table 7

Mean and Standard Deviation for Items in Reading Competition

Items	*M*	*SD*
bCM49 I like being the only one who knows an answer in something that we read.	3.53	1.329
bCM49 I am happy when someone recognizes my reading.	3.35	1.283
bCM1 I like being the best at reading.	3.31	1.191
bCM44 It is important for me to see my name on a list of good readers.	3.30	1.467
bCM52 I like to finish my reading before other students.	3.29	1.259
bCM18 My parents often tell me what a good job I am doing in reading.	3.32	1.381
bCM41 I am willing to work hard to read better than my friends.	2.92	1.466

Compliance

Table 8 shows the descriptive for compliance. The indicators with the smallest values: exactly how the teacher wants it (*M* = 3.43, *SD* = 1.189), and finishing every reading assignment is very important to me (*M* = 3.43, *SD* = 1.413).

The overall mean for compliance was 3.504 with a standard deviation of 0.899 and a skewness of -0.445. This skewness shows that the majority of the responses fell above the central value of 3.00 indicating that most survey participants had a positive response towards compliance. Additionally, the distribution had a kurtosis value of -0.383 indicating that most the responses were clustered around the same values causing the distribution curve to be evenly balanced and low with a slightly positive skew.

Table 8

Mean and Standard Deviation for Items of Reading Compliance

Items	*M*	*SD*
bCO46 I always try to finish my reading on time.	3.73	1.316
bCO36 Finishing every reading assignment is very important to me.	3.43	1.413
bCO51 I always do my reading work exactly how the teacher wants it.	4.43	1.189

Importance

Table 9 shows the descriptive for importance. The indicators with the smallest values are: In comparison to other activities I do, it is very important to me to be a good reader (*M* = 3.10, *SD* = 1.250), and it is very important to me to be a good reader (*M* = 3.42, *SD* = 1.275).

The overall mean for compliance was 3.259 with a standard deviation of 1.108 and a skewness of -0.228. This skewness shows that the majority of the responses fell below the central value of 3.00 indicating that most survey participants had a negative response towards compliance. Additionally, the distribution had a kurtosis value of -0.500 indicating that most of the responses were clustered around the same values causing the distribution curve to be generally symmetrical, low, and flat.

Table 9

Mean and Standard Deviation for Items in Importance

Items	*M*	*SD*
bIM27 In comparison to other activities I do, it is very important to me to be…	3.10	1.250
bIM17 It is very important to me to be a good reader.	3.42	1.275

Recognition

Table 10 shows the descriptive for recognition. The indicators with the smallest values are: My friends sometimes tell me I am a good reader. (*M* = 2.44, *SD* = 1.392), and I like to get compliments for my reading (*M* = 3.32, *SD* = 1.450).

The overall mean for recognition was 3.112 with a standard deviation of 1.058 and a skewness of -0.328. This skewness shows that the majority of the responses fell

about the central value of 3.00 indicating that most survey participants had a neutral response towards compliance. Additionally, the distribution had a kurtosis value of -0.573 indicating that most of the responses were clustered around the same values causing the distribution curve to be approximately symmetric, high, and narrow.

Table 10

Mean and Standard Deviation for Items in Recognition

Items	*M*	*SD*
bRN28 I like having the teacher say I read well.	3.58	1.220
bRN43 I like to get compliment for my reading.	3.32	1.450
bRN37 My friends sometimes tell me I am a good reader.	2.44	1.392

Social Reasons for Reading

Table 11 shows the descriptive for social reasons for reading. The indicators with the smallest values are: I often read to my brother or sister (*M* = 2.27, *SD* = 1.528), and my friends and I like to trade things to read (*M* = 2.44, *SD* = 1.357).

The overall mean for social reasons for reading was 2.721 with a standard deviation of 0.951 and a skewness of 0.140. This skewness shows that the majority of the responses fell below the central value of 3.00 indicating that most survey participants had a negative response towards compliance. Additionally, the distribution had a Kurtosis value of -0.791 indicating that most of the responses were clustered around the same values causing the distribution curve to be nearly symmetrical, high, and narrow.

Table 11

Mean and Standard Deviation for Items in Social Reasons for Reading

Items	*M*	*SD*
bSO42 I sometimes read to my parents.	2.88	1.939
bSO39 I like to help my friends with my school work in reading.	2.81	1.422
bSO11 I visit the library often with my friends.	2.70	1.480
bSO31 My friends and I like to trade things to read.	2.44	1.357
bSO26 I often read to my brother or sister.	2.27	1.528

Work Avoidance

Table 12 shows the descriptive for work avoidance. The indicators with the smallest values are: I don't like reading something when the words are too difficult (*M* = 2.94, *SD* = 1.413), and I don't like vocabulary questions (*M* = 3.09, *SD* = 1.456).

The overall mean for work avoidance was 3.048 with a standard deviation of 1.042 and a skewness of -0.177. This skewness shows that the majority of the responses fell below the central value of 3.00 indicating that most survey participants had a negative response towards compliance. Additionally, the distribution had a kurtosis value of -0.563 indicating that most of the responses were clustered around the same values causing the distribution curve to be approximately symmetrical, high and narrow.

Table 12

Mean and Standard Deviation for Items in Work Avoidance

Items	*M*	*SD*
bWA32 Complicated stories are no fun to read.	3.11	1.461
bWA24 I don't like vocabulary questions.	3.09	1.456
bWA13 I don't like reading something when the words are too difficult.	2.94	1.413

Motivation to Read

Figure 2 shows that the overall mean for motivation to read was 3.28, with a standard deviation of 0.634, and a skewness of -0.154. This skewness shows that the majority of the responses fell below the central value of 3.00 indicating that most survey participants had a negative response towards motivation to read. Additionally, the distribution had a kurtosis value of -0.028 indicating that most of the responses were clustered around the same values causing the distribution curve to be approximately symmetric, low and wide.

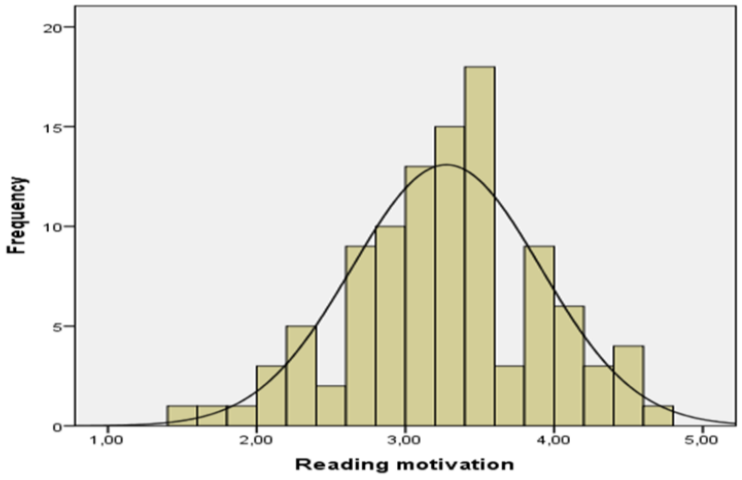


Figure 2. Histogram with Normal Curve for Reading Motivation.

Self-efficacy

Context

Table 13 shows the descriptive for the factor context. The indicators with the smallest values are: It does not matter if I do well in school (*M* = 1.85, *SD* = 1.291), I will quit school as soon as I can (*M* = 1.91, *SD* = 1.286), what I learn in school is not

important (*M* = 1.92, *SD* = 1.220) and no one cares if I do well in school (*M* = 2.25, *SD* = 1.493).

The overall mean for context was 4.051 with a standard deviation of 0.713 and a skewness of -0.797. This skewness shows that the majority of the responses fell below the central value of 3.00 indicating that most survey participants had a positive response towards context. Additionally, the distribution had a kurtosis value of 0.062 indicating that most of the responses were clustered around the same values causing the distribution curve to be moderately positively skewed.

Table 13

Mean and Standard Deviation for Items in Context

	M	*SD*
cCO17 It is important to go to high school.	4.55	.736
cCO7 I will graduate from high school.	4.44	.954
cCO13 When I am old enough I will go to college.	4.19	1.025
cCO24 Kids who get better grades than I do get more help from the teacher than I do.	2.46	1.321
cCO4 I would get better grades if my teacher liked me better.	2.33	1.397
cCO15 No one cares if I do well in school.	2.25	1.493
cCO20 What I learn in school is not important.	1.92	1.220
cCO28 I will quit school as soon I can.	1.91	1.286
cCO23 It does not matter if I do well in school.	1.85	1.291

Talent

Table 14 shows the descriptive for the factor talent. The indicators with the smallest values are: my classmates usually get better grades than I do (*M* = 3.00, *SD* = 1.329), when the teacher asks a question, I usually know the answer even if the other kids don't (*M* = 3.23, *SD* = 1.232), I am one of the best students in my class (*M* = 3.24,

SD = 1.242) and I am a good social studies student (*M* = 3.50, *SD* = 1.231).

The overall mean for talent was 3.654 with a standard deviation of 0.699 and a skewness of -0.363. This skewness shows that the majority of the responses fell below the central value of 3.00 indicating that most survey participants had a positive response towards talent. Additionally, the distribution had a Kurtosis value of 0.196 indicating that most of the responses were clustered around the same values causing the distribution curve to be normal and symmetrical (evenly balanced).

Table 14

Mean and Standard Deviation for Items in Talent

	M	*SD*
SETA27 I am smart.	4.25	1.031
SETA2 I could get the best grades in my class if I tried enough.	4.18	1.050
SETA16 My teacher thinks I am smart.	3.93	1.248
SETA21 I usually understand my homework assignments.	3.85	1.213
SETA25 I am a good reading student.	3.80	1.177
SETA18 I am a good math student.	3.80	1.234
SETA10 Sometimes I think an assignment is easy when the other kids in class think…	3.57	1.349
SETA26 It is not hard for me to get good grades in school.	3.51	1.207
SETA11 I am a good social studies student.	3.50	1.231
SETA14 I am one of the best students in my class.	3.24	1.242
SETA30 When the teacher asks a question I usually know the answer even if the other…	3.23	1.232
SETA19 My classmates usually get better grades than I do.	3.00	1.329

Effort

Table 15 shows the descriptive for the factor effort. The indicators with the smallest values are: I usually do not get good grades in math because it is too hard (*M* = 2.45, *SD* = 1.336), and most of my classmates work harder on their homework than I

do (*M* = 3.05, *SD* = 1.339).

The overall mean for effort was 3.740 with a standard deviation of 0.737 and a skewness of -0.226. This skewness shows that the majority of the responses fell below the central value of 3.00 indicating that most survey participants had a positive response towards talent. Additionally, the distribution had a kurtosis value of -0.676 indicating that most of the responses were clustered around the same values causing the distribution curve to be nearly symmetric.

Table 15

Mean and Standard Deviation for Effort

Items	*M*	*SD*
cEF9 I always get good grades when I try hard.	4.23	0.968
cEF1 I work hard in school.	4.23	0.968
cEF5 Most of my classmates work harder on their homework than I do.	3.05	1.339
SEF22 I usually do not get good grades in math because it is too hard.	2.45	1.336

Self-efficacy

Figure 3 show that the overall mean for self-efficacy was 3.811 with a standard deviation of 0.560 and a skewness of -0.429. This skewness shows that the majority of the responses fell below the central value of 3.00 indicating that most survey participants had a positive response towards self-efficacy. Additionally, the distribution had a kurtosis value of 0.184 indicating that most of the responses were clustered around the same values but to the right of the central value, causing the distribution curve to be positively skewed, narrow and peaked.

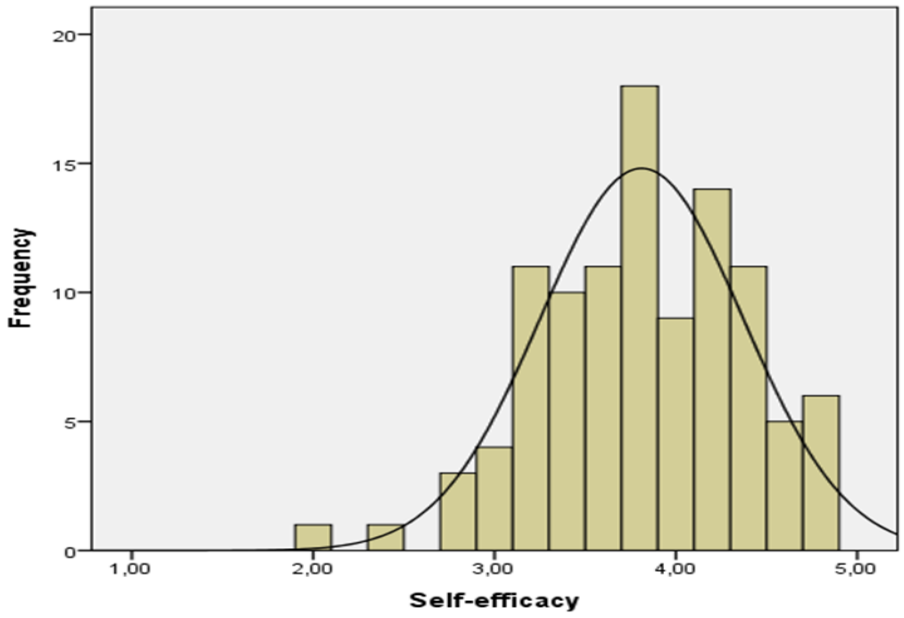


Figure 3. Histogram with Normal Curve for Self-efficacy.

Hypothesis Test

Having carried out the research, the model in Figure 4 was developed which explains the variables. The variables that are in the ellipses and the two larger rectangles are the four constructs and the other rectangles are the factor dimensions of each construct. The small circles are the errors. This model combines the observed information, latent information, and the errors. In Appendix F are the backup tables.

According to the goodness of fit criteria used, three of the five proposed criteria are met: Relative chi square is less than 3, CFI is greater than .9 and RMSEA is less than .08. Based on this adjustment, it was considered pertinent to accept that the model explains the relationships between the variables under study and adequately adjusts to the observed data. Once the model is accepted, the proposed hypothesis is analyzed.

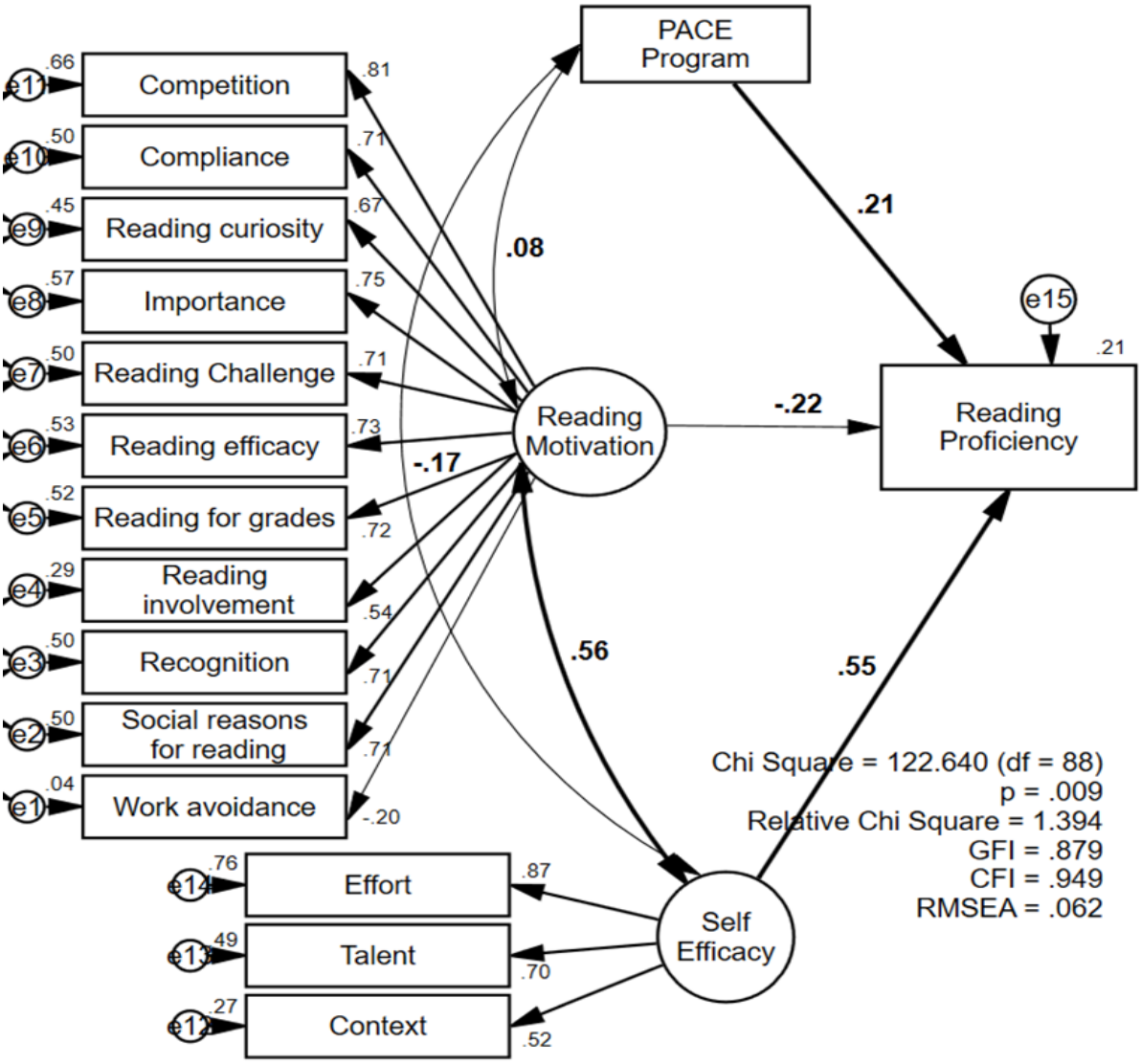


Figure 4. Standardized Path Model.

Null Hypothesis

Ho: Self-efficacy, motivation to read, and participation in the PACE program are not like predictors of the reading proficiency of 5th and 6th grade students attending private Christian schools in the Northeastern United States.

Since the model presents the significant predictors of reading proficiency as self-efficacy (γ = .55, p < .001) and participation in the PACE program (γ = .21, p = .030),

there is enough evidence to reject the null hypothesis and accept the research hypothesis. The variable reading motivation (γ = -.22, p = .106), does not appear to be a significant direct predictor, however, it has a significant indirect contribution through self-efficacy (ϕ = .56, p < .001), even more important than the direct contribution of the PACE program. Together, the three predictive variables explain, directly and indirectly, 21% of the variance in reading proficiency.

It is perceived in the measurement model that the most important variable to explain reading proficiency is self-efficacy, and that effort (λ = .87, p < .001) is the most important element to explain self-efficacy. Talent (λ = .70, p < .001) is followed in importance and finally context (λ = .52, p < .001). Reading Motivation is best explained by competition (λ = .81, p < .001), followed by importance (λ = .75, p < .001) then reading efficacy (λ = .73, p < .001).

Other Analysis

A comparison of the variables was made with respect to the gender of the student and significant difference was observed in nine of them (see Table 16). In all cases, it was found that women show higher values and all effect sizes are greater than .3, indicating that they are important. The major differences were found in Social reasons for reading and reading motivation. In Appendix G are the backup tables.

Table 16

Descriptive of the Variables Between Gender, t-test and Effect Size

	Gender	M	SD	Significance of t	Effect size
Competition	Male	3.0	.856	t = 3.471, p = .001	0.61
	Female	3.5	.792		
Compliance	Male	3.2	.979	t = 3.608, p = .001	0.70
	Female	3.8	.706		
Reading curiosity	Male	3.2	.953	t = 2.634, p = .010	0.47
	Female	3.6	.740		
Reading for grades	Male	3.3	.961	t = 2.827, p = .006	0.53
	Female	3.8	.937		
Reading involvement	Male	3.4	.966	t = 2.826, p = .006	0.48
	Female	3.8	.666		
Recognition	Male	2.8	1.067	t = 2.959, p = .004	0.59
	Female	3.4	.973		
Social reasons for reading	Male	2.3	.916	t = 4.141, p = .000	0.91
	Female	3.1	.837		
Reading motivation	Male	3.0	.636	t = 4.118, p = .000	0.86
	Female	3.5	.515		
Context	Male	3.9	.715	t = 2.097, p = .038	0.43
	Female	4.2	.689		

CHAPTER V

SUMMARY, DISCUSSION, CONCLUSIONS AND RECOMENDATIONS

Introduction

This chapter presents a synthesis of the research work, taking into account the background, the problem posed, the methodology used, and the results obtained. A discussion is made about the results and some recommendations of future research are given.

Summary

Reading proficiency is one of the most critical competencies that students need to acquire and master to be successful in school. Reading proficiency involves the comprehension of text, the construction and delineation of meaning from text, and applying this understanding to the appropriate context (Shoaga, et al., 2017). Reading proficiency therefore involves the ability to identify words, determining the meaning of those words when arranged in sentences and paragraphs, and responding in an adequate and timely manner to these messages (Shoaga, et al., 2017). Reading proficiency is the act of determining meaning from text, through the process of making sense of written messages (Cline, et al., 2006). According to Connors-Tadros (2014), reading proficiency is achieved when the student is able to demonstrate accuracy and fluency when interacting with text. Flores and Duran (2016) define reading competence or

proficiency as the capacity to comprehend and use written texts to develop knowledge and the potential to participate in society by means of reflection and involvement.

Fluency, applying knowledge to social and cultural contexts, interacting with and manipulating various modalities in a globally interconnected framework, are all aspects of reading proficiency in the 21st century. According to Lurie (2018) students who are proficient readers will read more extensively, resulting in the improvement in reading rate, fluency, and comprehension. Reading proficiency is therefore reciprocally related to the achievement of reading and by extension, learning goals. Extensive reading has a positive impact on reading proficiency as it impacts the affective domain where students experience pleasure from reading (VanDerHeyden, et al., 2018). The critical importance of reading proficiency in the United States has become increasingly urgent, as more students are reading below grade level (Kraidy, 2015). Students in similar age groups from other developed countries are scoring higher on standardized tests than students in the United States (Warner-Griffin, et al., 2017).

Self-efficacy concerns the belief that a person has in his/her ability to carry out a certain activity (Bandura, 1985). Self–efficacy is heavily influenced by one's confidence about what he /she can do in a particular situation (Wang, et al., 2018). Students' self-efficacy is important in determining their aspirations, motivation, and academic achievement (Bandura, 1993). It refers to the beliefs that students have about their capacities to realize their learning or academic goals (Marghitan, et al., 2017).

Self-efficacy has a strong influence on students' academic performance (Mills, et al., 2006; Wang, et al., 2018). Research has also pointed to the positive effect of self-efficacy on performance in reading, affecting key indicators such as: choice of

reading material, duration of time spent engaged in this activity, and the evidence of an understanding of text (Mills, et al., 2006). According to Bandura (1994), those who exhibit a higher level of self-efficacy will have the requisite self-confidence to see a task through to its completion and are concerned about the quality of their performance. Self-efficacy and motivation are essential in countering low expectations and self-doubt (Dykeman, et al., 2003).

According to Jang, Conradi, McKenna, and Jones (2015), motivation originates form the Latin word *movere* which means to move. Motivation to read therefore refers to what moves a student to pick up a book and persist in reading it even when it becomes difficult. Motivation is what makes a person want to read (Herzig, 2014). Crow (2015) identifies four major levels of motivation: intrinsic, identified, introjected, and extrinsic. It is posited that academic success requires high levels of intrinsic motivation (Egilmez, & Engur, 2017).

Motivation is a critical element in learning to read, it allows students to feel a sense of power and control over their learning environment (Darrington & Dousay, 2015). According to Lam and Law (2007), motivating learning and/or reading situations encourage student autonomy and task relevance. Lack of motivation, results in students' unwillingness to improve crucial reading skills (Melekoglu, & Wilkerson, 2013). This deficiency may also result in long-term negative effects on society, as it affects the literacy level of the workforce, with its resultant productivity related consequences (Crow, 2015).

Taking into account these constructs, the hypothesis that self-efficacy, motivation to read, and participation in the PACE program are predictors of the reading

proficiency of 5th and 6th grade students attending private Christian schools in the Northeastern United States. To prove it, an investigation was proposed that was ex-post-facto, non-experimental, correlational, empirical quantitative, descriptive, transversal and explanatory research. The latent exogenous variables used in the research were self-efficacy, motivation to read, and the PACE program and the endogenous latent variable was reading proficiency.

The sampling used in this research is stratified since the group is run to show reading proficiency among PACE and non-PACE students in private Christian schools from across the Northeastern United States. From a total of 55 students in PACE schools, 31 responses were received. This corresponds to 48% of the population. 73 students from non-PACE schools completed the survey. The surveys were distributed to each school via mail or by hand. The total amount of responses received was 104.

The instruments used to measure the variables were the following: Motivation for Reading Questionnaire (MRQ), the Morgan - Jinks Self-Efficacy Scale (MJSES) and reading proficiency test comprising passages with related comprehension questions. The results were obtained through the analysis of the hypothesis test through the structural equation model, obtaining acceptable goodness of fit indices.

Of the five proposed adjustment indices, the normed chi-square (1,369), the CFI (.949) and the RMSEA (.062) were reached, indicating that the theoretical model fits directly to the data collected through the poll; that is, the empirical model. Once the model is accepted, observe the prediction coefficient between the variables self-efficacy ($\gamma = .55$) and the PACE program ($\gamma = .21$), explaining significantly student reading proficiency for having p-values of less than .05. The structure model shows that there

is a significant positive relationship between self-efficacy variables and motivation to read ϕ = .56. It also shows that the variable reading motivation γ = -.22, does not turn out to be a significant direct predictor, however, it has a significant indirect contribution through self-efficacy ϕ = *.56*, even more important than the direct contribution of the PACE program. Together, the three predictive variables explain, directly and indirectly, 21% of the variance in reading proficiency.

When observing the measurement model, the contributions of the observed variables (factors) to the relationship are perceived. All factors contribute significantly to the level of .05 to the corresponding latent variables. The most important factors of the self-efficacy as contributors to the relationship with reading proficiency are the following: effort (λ =*.87*) and talent (λ = *.70*). The self-efficacy factor that contributes least to reading proficiency is context (λ = *.52*). Likewise, the most important factors of motivation to read as contributors to the relationship with reading proficiency are the following: Competition (λ = *.81*), importance (λ = *.75*), reading efficacy (λ =*. 73*) and support educational. (λ = *.72*). The motivation to read that contributes least to reading proficiency is work avoidance (λ = *-.22*).

Discussion

This section discusses the most important results obtained from the research carried out. In keeping with the model presented in Figure 4 above, similar findings by Mills, et al. (2006) showed that student self-efficacy has a positive impact on students' academic performance, and specifically on reading proficiency. In accordance with the literature, the model also demonstrates that there is a significantly positive relationship

between self-efficacy and motivation. Students who are intrinsically motivated to accomplish a certain task will persist at that task and experience success.

The dimension of self-efficacy which exhibited the greatest impact was effort. As stated by Jinks and Morgan (1999), effort is one factor that can make the difference between success and failure. The levels of self-efficacy will determine persistence, determination, motivation and grit exhibited by readers.

A review of the arithmetic means suggest that the majority of the sample population believed that the dimensions of self-efficacy played a significant role in their learning to read and their reading practices. The data above indicate elevated means for concepts related to natural abilities, persistence and reading or academic goals. This reveals that students believe that their individual self-efficacy contribute heavily to reading proficiency.

The items with the four highest scores were the ones related to personal academic goals, high levels of self-confidence and effort. These items are significant in determining the self-efficacy levels of students. Students with high scores in these ítems are said to exhibit higher levels of self-efficacy. These students achieve higher reading scores than their peers. The ítems with the lowest results were those related to students' perception about the importance of schooling, academics, and reading. These students seem to be projecting the sense that teachers and caregivers show little interest in their learning/reading goals. Students responding positively to these items are said to indicate lower levels of self-efficacy.

According to Jinks and Morgan (1999), in their research to develop the scale of self-efficacy used in this study, there is a strong and persistent correlation between motivation to read and student self-efficacy beliefs. Deci and Ryan (2008), suggest that the type and quality of motivation is more important than the amount. Wigfield and Guthrie (1997), also highlighted the huge impact of self-efficacy on motivation to read. They identified it as a critical dimension in developing the MRQ.

These theories are in alignment with this study. As illustrated in the model above, there is a negative direct correlation between motivation to read and reading proficiency. However, there is a strong and positive correlation between motivation to read and self-efficacy, which in turn has a very positive influence on reading proficiency. This proves that students' belief in their reading ability provides a strong motivational effect. Research suggests that these students are exhibiting elevated levels of intrinsic motivation which catalyzes or moves students to be successful. Consequently, these students develop confidence in their reading ability which motivates them to continue reading and become proficient readers.

The overall mean for motivation to read, shows that the majority of the responses fell below the mean. This indicates that most survey participants had a negative response towards motivation to read. This result is considered highly unusual since motivation is considered a key element in reading and a critical component generally in student academic performance.

The items with the four highest scores were associated with intrinsically motivated readers who read for pleasure and demonstrate confidence in their reading abilities. These items are significant in determining the reading motivation levels of

students. Students with high scores in these ítems are said to exhibit higher levels of motivation to read. The ítems with the lowest results were those associated with social reasons such as reading for family members and sharing books with friends. With the majority of students responding positively to items that reflect negatively on reading motivation, this has produced the effects outlined above.

The PACE Program

The model above, provides confirmation that the PACE program, exerted a positive impact on reading proficiency. It also indicates that the combined positive correlation between the PACE program, and self-efficacy creates a substantial correlation with reading proficiency. While there were no research articles identified on the PACE program during this study, this is supported by anecdotal evidence from use by this researcher. Other teachers have also reported that there was evidence of the impact of this program affecting student motivation, self-efficacy and reading proficiency. Students who use the PACE program, therefore, usually indicate improvements in their reading performance.

Further analysis of the arithmetic means of PACE and non-PACE students for the dimensions of motivation to read provide additional support to this idea. PACE students scored significantly higher in factors such as competition, importance, and reading efficacy than non-PACE students. They also scored higher on the overall motivation to read indicators. These factors are more closely associated with intrinsic motivation, which is activated by the students' innate drive and interests rather than external enticements or threat (Deci, & Ryan, 1985; Wigfield, 1996). This indicates that PACE students who are more intrinsically motivated will be more interested in reading for

pleasure and personal achievement. This leads to more time spent reading and consequently general improvement in reading.

Students who are engaged in utilizing the PACE curriculum benefit from self-efficacy and motivation to read, which leads to reading proficiency and consequently higher levels of academic performance.

Conclusions

The current study endeavored to examine the reading proficiency of grade 5th and 6th students in selected Christian private schools and the factors influencing reading proficiency. The conclusions are as follows:

1. In the present study self-efficacy appeared to be the variable with the most direct and significant impact on reading proficiency.

2. The use of Pace program helps to strengthen reading proficiency.

2. Reading motivation is an important indirect predictor to explain reading proficiency through self efficacy.

Recommendations

The following recommendations are made from the results of the study:

To educational institutions

1. That the education departments of Northeastern Conference and Southern New England Conference of SDA implement strategies that foster student self-efficacy.

2. That the education departments of Northeastern Conference and Southern New England Conference of SDA implement strategies that enhance motivation to read.

3. That the education department of North

American Division incorporate features of the PACE program into the Pathways (reading) curriculum.

4. That the NAD Department of Education consider the development of a reading intervention program that incorporates motivational strategies to increase student self-efficacy.

5. That classroom teachers implement strategies that foster student self-efficacy in their classrooms.

For Future Research

1. This study investigated (was conducted with) 5th and 6th grade students, mainly from Seventh-day Adventist private schools in the Northeastern Region of the United States. The results could therefore be considered limited in scope. An expansion of the geographic boundaries, extending the sample to include students of other grades, and the inclusion of public schools could provide stronger correlations among the variables.

2. Future researchers may use this study as a springboard for a longitudinal research of this or other populations. This may provide further clarification of the correlations among the variables.

3. Further study utilizing a Quasi-experimental design could offer a more in-depth explanation of the correlation between the variables. A quasi-experimental design is research in which the sample is not randomly assigned; it is not considered a true quantitative research method (Chiang, Jhangiani, & Price, 2015). An example of a quasi- experimental is a pre-test and post-test research. The study revealed that there

was a significantly stronger correlation between self-efficacy and reading proficiency than there was between motivation to read and reading proficiency among the 5th and 6th grade students surveyed. A quasi-experimental design along with other demographic data may provide further clarification of this relationship between the variables.

4. Replicate the research in a greater sample of 5th and 6th grade students in order to strengthen the validity and determine the impact of extraneous variables. According to Lamal (1990) replication studies play a critical role in scientific advancement since current investigations are grounded in the results of previous research.

APPENDIX A

PERMISSIONS

20 Dean Drive
East Hartford, CT 06118
autleym@att.net

October 14, 2019

Mrs. Viola Chapman
Superintendent of Schools
Northeastern Conference of SDA
115-50 Merrick Blvd
Jamaica, NY 11434

Dear Mrs. Chapman:

I have been using the ACE (PACE) program for several years as a teacher at a small private school. During this time, I have been impressed with the work ethic, motivation, and general improvement in academic performance and spiritual development that has been observed in students using this program.

I am currently a doctoral student at the University of Montemorelos in Mexico, where I am pursuing studies in Educational Management with a focus on curriculum and instruction. My objective is to conduct an in-depth analysis of the ACE (PACE) program exploring the unique elements which have been incorporated to facilitate student success.

I will be comparing the performance of the students using the ACE curriculum with students who are not using that curriculum.

This is a request for permission to have your schools participate in my study of the program. I would like to have your 6th grade students complete a questionnaire investigating students' self- efficacy and motivation. This can be completed in one 45-minute session if they complete it as a group in class.

My study will highlight the positive aspects of this program for all students. The findings will be shared with your organization and could be an effective marketing device, to promote and encourage use of the ACE curriculum.

The results will provide empirical evidence of academic performance and motivation among students using the PACE booklets to complement their studies. It is hoped that the study will validate the strategies used to enhance the holistic development of the students utilizing the ACE curriculum.

Thanking you for your kind consideration of this request.

Yours in Christian Service,

Autley Marrett.

20 Dean Drive
East Hartford, CT 06118
autleym@att.net

October 14, 2019

Mr. Jeff Howard, Principal
Cedar Grove Christian Academy
6445 Bingham Street
Philadelphia, PA 10111

Dear Mr. Howard:
I have been using the ACE (PACE) program for several years as a teacher at a small private school. During this time, I have been impressed with the work ethic, motivation, and general improvement in academic performance and spiritual development that has been observed in students using this program.

I am currently a doctoral student at the University of Montemorelos in Mexico, where I am pursuing studies in Educational Management with a focus on curriculum and instruction. My objective is to conduct an in-depth analysis of the ACE (PACE) program exploring the unique elements which have been incorporated to facilitate student success.

This is a request for permission to have your school participate in my study of the program. I would like to have your 6th grade students complete a questionnaire investigating students' self- efficacy and motivation. This can be completed in one 45-minute session if they complete it as a group in class.

My study will highlight the positive aspects of this program for all students. The findings will be shared with your organization and could be an effective marketing device, to promote and encourage use of the ACE curriculum.

The results will provide empirical evidence of academic performance and motivation among students using the PACE booklets to complement their studies. It is hoped that the study will validate the strategies used to enhance the holistic development of the students utilizing the ACE curriculum.

Thanking you for your kind consideration of this request.

Yours in Christian Service,

Autley Marrett.

20 Dean Drive
East Hartford CT 06118
autleym@att.net

Dear Parent,

I am a doctoral student at the University of Montemorelos in Mexico, where I am pursuing studies in Educational Management with a focus on curriculum and instruction.

My objective is to conduct an in-depth analysis of the ACE (PACE) program exploring the unique elements which have been incorporated to facilitate student success.

I will be comparing the performance of the students using the ACE (PACE) curriculum with students who are not using that curriculum.

Findings will be used to enhance the teaching /learning experience, leading to improved academic performance.

This is a request for permission to have your child/children participate in my study of the program.

I would like to have your 5th and/or 6th grade student complete a questionnaire investigating students' self- efficacy and motivation. This can be completed in one 45-minute session if they complete it as a group in class.

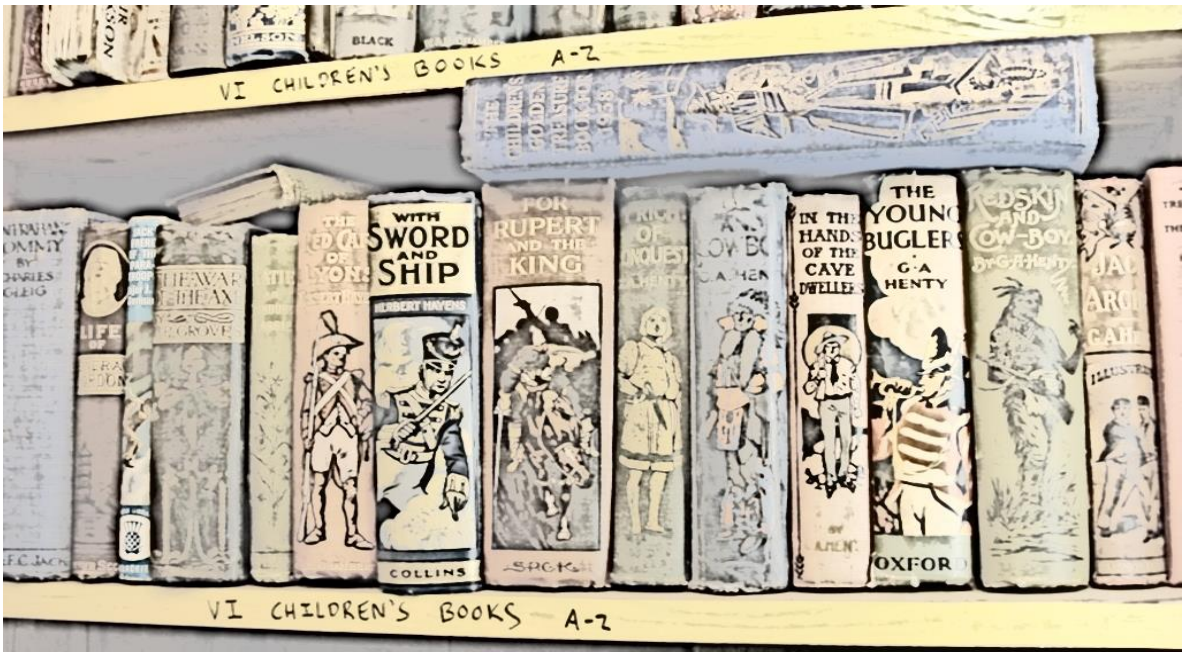
Thanking you for your kind consideration of this request.

Yours in Christian Service,

Autley Marrett.

APPENDIX B

RESEARCH INSTRUMENT



MONTEMORELOS UNIVERSITY

Reading proficiency, my family and me

Please respond to the proposed activities. Think and answer following the instructions in each section.

Name: _____

Grade: _____ School: _____

Boy ( ) Girl ( )

SECTION I: Below are some passages followed by some questions about them.

1. Read all directions carefully
2. Read the whole passage, you may read it more than once to answer each question.
3. Read each question carefully and think about the answer before you make your choice.

Saving Snow Leopards

By Pamela Crowe

"Mountain Ghost"

1 The snow leopard is rarely seen by humans. This mysterious cat lives in 12 Asian countries among the world's tallest mountains.

2 The snow leopard is smaller than the tiger, the lion, and the leopard of Africa and Asia. It weighs as much as a cheetah, but is shorter and stockier. The cat's compact shape and thick fur help keep it warm in glacier- chilled air. Dark markings dapple its light-gray coat, camouflaging it in rocky terrain. Big paws make padding over snow easier. An extra-long tail provides balance on steep rugged ground.

3 You might think the snow leopard would be safe living in such harsh, remote places. But it faces multiple threats from humans. The cat has lost important stretches of habitat. (A habitat is a place that fills an animal's needs- mainly food, shelter, and mates.) Mining, wars, and overgrazing by farm animals have all led to loss of habitat.

Protecting the Herd

4 The loss of habitat has caused a food shortage. Snow leopards eat wild goats and sheep. When farm animals eat too much vegetation, wild plant eaters can't find enough food to stay healthy. Females don't have enough babies. Over time, the numbers of wild goats and sheep go down, and snow leopard have less to eat. Then the big cats eat livestock, and the shepherds kill the leopards to protect their livelihoods.

5 Agencies are working to save the cats and help herders at the same time. Some agencies give herders wire mesh and wood to keep snow leopards from entering their stables at night. Some pay herders for animals they lose to snow leopards. In exchange, the herders killing snow leopards and leave more room and plants for wild goats and sheep.

6 Are the conservation programs working? Researchers estimate that only 3,500 to 7,500 snow leopards are alive today. But they need more reliable ways to count leopards before they will know.

7 That's where scientists like Dr. Kyle McCarthy are needed. He traveled to Kyrgyzstan to test ways of estimating snow leopard numbers. He camped in the mountains with Dr. Jennifer McCarthy (his wife) and other co-workers. They saw no leopards, but they hadn't expected to. Instead they looked for evidence the cats left behind. "You have to find something related to them: poops, scrapes (claw marks), and pee," Dr. Kyle McCarthy says.

8 The group collected scat (poop) for DNA analysis. Along with the waste material of digestion, scat contains the cells from the animal's own body. DNA is material inside those cells that, like fingerprints, can identify an individual animal.

9 The team also used automatic cameras. The scientists placed motion- and-heat-sensitive cameras along a mountain ridge. When a snow leopard neared one of these “camera traps,” the camera snapped the picture.

10 Each snow leopard’s spot pattern is different. Researchers compared patterns in the photos to identify cats. The cameras have taken pictures of 15 different snow leopards at two study sites.

A Close Encounter

11 Shannon Kachel, Dr. Kyle McCarthy’s graduate assistant, has searched for snow leopards in Tajikistan, where he almost saw one. “I was hiking along a ridgeline in the late afternoon and came around the corner of a rock cropping to find a steaming fresh kill site with snow leopard sings all around,” Kachel says. “I could see and hear where the cat had knocked some rocks loose as it ran away from me, but even though I waited until it was nearly dark, I never saw the cat.”

12 “Most people will never see a snow leopard, yet it has a right to exist,” Dr. Kyle McCarthy says. “It’s too magnificent to think about losing.”

THREATS TO SNOW LEOPARDS	
Illegal hunting	• Snow leopards are hunted for their fur and bones.
Loss of habitat	• People and livestock move into snow leopard range.
Loss of prey	• Fewer prey are available to snow leopards when wild sheep and goats are hunted. • Livestock compete with the wild sheep and goats for food and the number of wild animals is reduced.
Killed by herders	• Sheep and goat herders kill the leopards when the leopards eat livestock.
Lack of effective protection	• The areas in which the snow leopards live are too large to protect. • Many countries cannot afford to pay for protection.
Lack of awareness and support	• Herders do not understand the importance of snow leopards to the ecosystem.

Answer the following questions.

1. What does the word “**conservation**” mean as it is used in paragraph 6?

A. action
B. education
C. preparation
D. protection

2. How does paragraph 9 connect to paragraph 6 in the article?
   A. by describing a method for counting snow leopards.
   B. by describing what it is like to see a snow leopard.
   C. by explaining why snow leopards are rarely seen by humans.
   D. by explaining how scientists identify individual snow leopards.
3. Which idea best explains why Dr. McCarthy and his co-workers traveled to Kyrgyzstan?
   A. “The loss of habitat has caused a food shortage.” (paragraph 4)
   B. “But they need more reliable ways to count leopards before they will know.” (paragraph 6)
   C. “They saw no leopards, but they hadn’t expected to.” (paragraph 7)
   D. “Researchers compared patterns in the photos to identify cats.”
4. Which idea from the article best supports the main idea?
   A. “The snow leopard is smaller than the tiger, the lion, and the leopard of Africa and Asia.” (paragraph 2)
   B. “Researchers estimate that only 3,500 to 7,500 snow leopards are alive today.” (paragraph 6)
   C. “Each snow leopard’s spot pattern is different.” (paragraph 10)
   D. “The camera had taken photos of 15 different snow leopards at two study sites.” (paragraph 10)
5. How is the article mainly organized?
   A. compare and contrast
   B. sequence of events
   C. question and answer
   D. cause and effect
6. How does the table at the end of “Saving Snow Leopards” support the main idea of the article?

A. By showing reasons why snow leopards are struggling to survive
B. By listing ways to better protect snow leopards
C. By presenting new information about the habitat of snow leopards
D. By providing evidence that there are fewer snow leopards now than in the past.

Excerpt from the Wooly- Puff Rescue

1 Wendy and Alex stared at the strange flower at their feet. Dozens of them bloomed in this remote corner of the field.

2 Wendy bent down for a closer look. “We shouldn’t name them until we’re sure we can keep them,” she warned. But I like Wooly-Puffs. They look just like fleecy rainbows.

3 As tempting as it was to pet the feathery yellow-orange-red-purple-blue petals, neither of them did. Instead, Wendy pulled protective gloves from her belt pack.

4 On the asteroid-based colony of New Harmony, even twelve-year-old pioneers knew the number one rule for living in outer space: don’t touch or taste or sniff anything that has not been tested.

5 “Where do you think they came from?” Wendy asked. With a gentle tug, she freed a Wooly-Puff from the thin layer of soil, sealed it in a clear bag.

6 “They were probably in the compost shipment that brought these naggers,” Alex muttered. They slapped at one of the whining insects that swarmed around him looking for exposed skin to bite (Compost is a mixture of decaying plants used to improve the soil in a garden).

7 New Harmony depended on shipments of rich compost from nearby planets to build up its soil. Usually the compost was treated before it arrived, but one shipment had been accidentally overlooked. The whining gnat-like insects the colonists called “naggers” had hatched from the compost. Without any natural enemies in this new world, the insects had multiplied, becoming a constant torment to the colonists.

8 After turning in their discovery, Wendy settled on a stone bench in front of the New Harmony laboratory. Alex paced, then sat. “Poor Wooly-Puff,” Wendy said, What if it’s just a weedy flower?”

9 “Then one living plant and a packet of seeds will be sent to the Botany Preserve on Mars,” Alex answered, rubbing a hot-pink nagger welt just above his elbow.

10 Wendy gingerly held the extra bouquet she had picked, in case the Wooly-Puffs proved keepers. “And the rest of the plants-”

11 The rest will be pulled up and destroyed to make room for ‘useful’ plants,” Alex said.

12 The colony of New Harmony did have flowers. It just didn't have a lot of room. Wooly-Puffs would have to be more than pretty if they wanted to grow here.

13 The two friends scrambled to attention as the lab door opened.

14 "Your Wooly-Puff isn't toxic," Professor Raglin said. His smile faded as he went on. "The sap is thick and sticky, but we already have good glue. The stems are too woody and the leaves too bristly to eat. And the petals, well, they smell funny. Not flowery at all. More like moldy lemons. I'm sorry, but I'll have to make my report to the council this afternoon. The good news is that they seem to grow only in the soil where we found them, so it won't be hard to get rid of them."

15 "At least they're not poison," Wendy said after Professor Raglin had left. She hugged her colorful, fuzzy bouquet. She had to admit they did smell funny. "Mayor Murphy will probably send a reclaim crew out after the council meeting." She sighed. "I wish the council would let us adopt one, like a pet."

16 "Fat chance," Alex said. He blew at a pair of naggers trying to land on his knee. "Shoo! For harmless gnats, these bugs sure are pests."

17 "Yeah." Wendy reached up to scratch the end of her nose. Then she realized something. The end of her nose itched simply because that's what the ends of noses do sometimes. The naggers weren't biting her. They weren't even landing on her.

18 "We're going to the council meeting," she announced.

19 That afternoon, when the council members emerged from the community center, Alex and Wendy were waiting.

20 "What is the meaning of this?" Mayor Murphy demanded as Alex and Wendy presented each member of the council with a Wooly-Puff garland.

21 Glancing at Alex for courage, Wendy said, Wooly-Puffs are bug chasers."

22 "Sorry," Mayor Murphy said firmly. "We have already made our decision."

23 "Just watch," Wendy pleaded. "Watch the naggers."

24 Then someone said, "What naggers? I don't see any."

25 "Where are the naggers?" asked Professor Raglin. "It's as if they're avoiding us."

26 Wendy smiled, "They are. Naggers don't like Wooly-Puffs."

27 So the Wooly-Puffs stayed in the vases and flower boxes and gardens of New Harmony because, of course, they weren't just pretty. They smelled like moldy lemons. And luckily, naggers can't stand the smell of moldy lemons.

Answer the following questions.

1. In paragraph 2, what does the sentence "**They look just like fleecy rainbows**" suggest about the flowers?

   A. The flowers are colorful and fuzzy.

   B. The flowers are wet and fluffy.

C. The flowers are striped and shaggy.

D. The flowers are transparent and puffy.

2. What does the word "**welt**" mean as used in paragraph 9?

   A. Itch

   B. Skin

   C. Gnat

   D. Bump

3. Read this sentence from paragraph 14. "**His smile faded as he went on"**. What does the sentence suggest about Professor Raglin?

   A. He is suffering from the bad smell.

   B. He regrets having to study the plant.

   C. He dislikes the plant he is talking about.

   D. He is about to deliver disappointing news.

4. Read this sentence from paragraph 15. "**At least they're not poison," Wendy said after Professor Raglin had left**. What does the sentence suggest about Wendy?

   A. Wendy looks for the positive side of situations.

   B. Wendy does not like people to give her bad news.

   C. Wendy challenges people who do not agree with her.

   D. Wendy encourages people to learn to love flowers.

5. How does the setting of the story affect what happens to the Wooly –Puff?

   A. A lack of space causes the flowers to be shipped away.

   B. A need for compost causes the plant to be valued.

   C. A problem with insects causes the flower to be kept.

   D. A lack of pets causes the plant to be adopted.

6. What does the phrase "**smell funny**" mean as it is used in paragraph 15?

   A. The flowers made the children laugh.

   B. The scent of the flowers was unusual.

   C. The flowers caused the children to be itchy.

   D. The stems of the flowers were strange.

7. Which statement **best** states a theme of the story?

A. Friends should support each other in difficult situations.

B. Following the rules can sometimes get you in trouble.

C. It may take courage to speak up when you have a good idea.

D. The smallest things can cause big problems.

Excerpt from Last Regrets

By Paige Hook

1 I sat in my pink-flowered swimsuit on the hot concrete of the driveway, my legs stretched out in front of me, my chipped pink toenails pointing to the sky. I was reflecting on the brilliant defeat the boys had just suffered in yet another water fight with the neighborhood girls.

2 Looking down the driveway to the road, I felt the ground beneath me rumble. My legs began to shake, the leaves on the trees trembled, and I could swear that a flowerpot tumbled over on my neighbor's front porch. The intense rattling increased with every passing second.

3 I got up and started to run, my bare feet smacking against the scalding pavement. I had to hide until I found an excuse. Something, anything, to get me out of it.

4 "Paige," I heard my mom call from the front door, "come inside. Your grandparents just pulled up."

5 "Rats," I whispered. Slowly, I turned around and walked back with my head down, looking at the pavement.

6 When I got to my driveway, I looked up and saw a familiar sight. It was a monster, a white monster, complete with an "I love Fishing" bumper sticker. The shadow it made almost covered the entire driveway. But the real problem sat behind the white monster. It looked harmless at first, but I had already spent too many boring afternoons in I this summer. It was a little red fishing boat, my grandpa and grandma's pride and joy.

7 I walked inside the house where my grandparents and my mom were standing around the island in the kitchen. I have both of my grandparents a hug and proceeded to the cupboard for a glass.

8 "How 'bout some fishing Paige?" my grandpa asked. Your two brothers are raring to go."

9 This is what I had been dreading. "I don't know, Grandpa. It's pretty hot out."

10 "It's never too hot to fish. I brought the boat and everything. It's all hitched up behind the RV. I know how much you love riding in the boat."

11 He was wrong. I hated the boat. I like riding in boats when they are going fast. I like riding in boats that you can waterski behind. I'd even settle for tubing if skiing wasn't an option. But fishing boats hardly even moved.

12 "We'll have to buy you a new fishing pole first. Your mom said you lost your last one," said Grandpa.

13 I seemed to lose a lot of fishing poles, but my grandpa never minded. He would just take me to target to buy another one.

14 In twenty minutes, I found myself walking into the mouth of the monster, complete with pink interior from the dirt-covered floor mats to the darker pink seats. Behind the seats nestled a small kitchenette, littered with what was surely last month's breakfast: two plates covered with syrup, an old waffle box, an empty carton of eggs, and a basket filled with rotten fruit. Across from the kitchenette stood the bathroom, which contributed to the monster's bad case of morning breath. Beyond this was a small bed, piled high with pink blankets, resembling a tongue that could lash out at any time and swallow me whole.

15 Hanging neatly on hooks above the kitchenette counter were Grandpa's hats, white with stains, like teeth that hadn't been brushed in a while. They all had sayings like "#1 Grandpa" and "King of the Sea." Before he sat down in the driver's seat, Grandpa plucked the nearest hat off a hook and put it on over his bald spot to avoid burning his head in the hot summer sun.

16 My grandpa maneuvered the large RV and boat out of our neighborhood, and in ten minutes, we were at Raccoon River, placing the red fishing boat in the water. I was going to borrow an extra pole that my grandpa kept "just in case." Great.

17 In minutes, all three of us kids had our lines in the water. The sweat running down my body was already stinging my eyes and turning the fake leather seat beneath me into a wet, slippery mess. The breeze that may have made the summer heat bearable was non-existent on the small lake surrounded by tall trees. It was going to be a long afternoon.

18 Three hours later, everybody else had caught at least two fish. The boat was once again attached to the back of the RV, and we were on our way home, a waste of another Saturday afternoon.

19 "Wasn't that fun, kids?" asked my grandpa as he peeked back at us through the rearview mirror.

20 My brothers both responded enthusiastically and then began arguing about who had caught the biggest fish. I continued to stare out of the RV window without answering Grandpa's question.

1**raring**: eager

Answer the following questions

1. What does paragraph 5 reveal about Paige?
   A. She fears going out on the lake.
   B. She wants to avoid her grandparents.
   C. She prefers the outdoors to coming inside.
   D. She wants to play with the neighborhood girls.

2. How do paragraphs 8 and 10 develop the plot of the story?
   A. They give background information about Paige.
   B. They illustrate Paige's internal conflict.
   C. They explain why Paige admires her Grandpa.
   D. They show how Paige and her brothers are alike.
3. Read this sentence from paragraph 14. **Across from the kitchenette stood the bathroom, which contributed to the monster's bad case of morning breath**. What does the metaphor mean in the sentence?
   A. The RV had a rotten smell.
   B. People slept poorly in the RV.
   C. The RV was a cramped place.
   D. People made a mess inside the RV.
4. Which detail signals a change in the story?
   A. Grandpa loans Paige a fishing pole.
   B. Paige warns her family about the heat.
   C. Grandpa and Grandma arrive in their RV.
   D. Paige and the girls beat the boys in water fight.
5. How does the author most develop Grandpa's point of view in the story?
   A. By having the narrator describe Grandpa.
   B. By sharing Grandpa's thoughts with the reader.
   C. By including dialogue between Grandpa and the kids.
   D. By showing how Grandpa acts with Paige's brothers.
6. Which detail would be most important to include in a summary of the story?
   A. Paige loses a lot of fishing poles.
   B. Grandpa owns many different hats.
   C. Paige enjoys skiing and tubing.
   D. Grandpa wants to take the kids fishing.
7. Which sentence best expresses the theme of the story?
   A. People usually change as they grow older.
   B. Sometimes people are embarrassed by family.
   C. People often cherish their childhood memories.

D. Sometimes people make choices to please others.

SECTION II. Instructions: The sentences tell how some students feel about reading. Read each sentence and decide whether it talks about a person who is like you or different from you. Place a check in the box that is most like you. There are no right or wrong answers. We only want to know how you feel about reading.

 Very different from me	 A little different from me	 I am not sure	 A little like me	 A lot like me

1	I like being the best at reading.	
2	I like it when the questions in the book make me think.	
3	I read to improve my grades.	
4	If the teacher discusses something interesting I might read more about it.	
5	I like hard, challenging books.	
6	I enjoy a long, involved story or fiction book	
7	I know that I will do well in reading next year	
8	If a book is interesting I don't care how hard it is to read.	
9	I have favorite subjects that I like to read about.	
10	I have favorite subjects that I like to read about.	
11	I visit the library often with my family	
12	I make pictures in my mind when I read	
13	I don't like reading something when the words are too difficult	
14	I like reading books about people in different countries.	
15	I am a good reader.	
16	I usually learn different things by reading	

17	It is very important to me to be a good reader.	
18	My parents often tell me what a good job I am doing in reading.	
19	I read to learn new information about topics that interest me	
20	If the project is interesting I can read difficult material.	
21	I learn more from reading than most students in the class.	
22	I read stories about fantasy and make believe.	
23	I read because I have to.	
24	I don't like vocabulary questions.	
25	I like to read about new things.	
26	I often read to my brother or my sister.	
27	In comparison to other activities I do It is very important to me to be a good reader.	
28	I like having the teacher say I read well.	
29	I read about my hobbies to learn more about them.	
30	I like mysteries.	
31	My Friends and I like to trade things to read.	
32	Complicated stories are no fun to read.	
33	I read a lot of adventure stories.	
34	I do as little school work as possible in reading.	
35	I feel like I make friends with people in good books	
36	Finishing every reading assignment is very important to me.	
37	My friends sometimes tell me I am a good reader.	
38	Grades are a good way to see how well you are doing in reading.	
39	I like to help my friends with their school work in reading.	
40	I don't like it when there are too many people in the story.	
41	I am willing to work hard to read better than my friends.	
42	I sometimes read to my parents.	

43	I like to get compliments for my reading.	
44	It is important for me to see my name on a list of good readers.	
45	I talk to my friends about what I am reading.	
46	I always try to finish my reading on time.	
47	I am happy when someone recognizes my reading.	
48	I like to tell my family about what I am reading.	
49	I like being the only one who knows an answer in something we read.	
50	I look forward to finding out my reading grade.	
51	I always do my reading work exactly as the teacher wants it.	
52	I like to finish my reading before other students.	
53	My parents ask me about my reading grade.	

SECTION III. **Instructions**: This is a list of questions about how students perform in school. After reading each question on the left, place a check in the box below the response on the right that apply to you.

 Really disagree	 Kind of disagree	 I am not sure	 Kind of agree	 Really agree

1	I work hard in school	
2	I could get the best grades in class if I tried enough.	
3	Most of my classmates like to do math because it is easy.	

4	I would get better grades if my teacher liked me better.	
5	Most of my classmates work harder on their homework than I do.	
6	I am a good science student.	
7	I will graduate from high school.	
8	I go to a good school.	
9	I always get good grades when I try hard.	
10	Sometimes I think an assignment is easy when the other kids in class think it is hard.	
11	I am a good social studies student.	
12	Adults who have good jobs probably were good students when they were kids.	
13	When I am old enough I will go to college.	
14	I am one of the best students in my class.	
15	No one cares if I do well in school.	
16	My teacher thinks I am smart.	
17	It is important to go to high school.	
18	I am a good math student.	
19	My classmates usually get better grades than I do.	
20	What I learn in school is not important.	
21	I usually understand my homework assignments.	

22	I usually do not get good grades in math because it is too hard.	
23	It does not matter if I do well in school.	
24	Kids who get better grades than I do get more help from the teacher than I do.	
25	I am a good reading student.	
26	It is not hard for me to get good grades in school.	
27	I am smart.	
28	I will quit school as soon as I can.	
29	Teachers like kids even if they do not always make good grades.	
30	When the teacher asks a question I usually know the answer even if the other kids don't.	

THANK YOU !

APPENDIX C

DEMOGRAPHIC TABLES

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Male	51	49,0	49,0	49,0
	2 Female	53	51,0	51,0	100,0
	Total	104	100,0	100,0	

PACE/ non- PACE

P12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 PACE program	31	29,8	29,8	29,8
	2 Not Pace Program	73	70,2	70,2	100,0
	Total	104	100,0	100,0	

APPENDIX D

FACTORIAL ANALYSIS

1. Reading Proficiency

Reliability Statistics

Cronbach's Alpha	N of Items
,722	20

2. Motivation to Read
   Competition in Reading

Reliability Statistics

Cronbach's Alpha	N of Items
,755	7

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,745
Bartlett's Test of Sphericity	Approx. Chi-Square	155,841
	df	21
	Sig.	,000

Communalities

	Initial	Extraction
bCM1 I like being the best at reading.	1,000	,419
bCM18 My parents often tell me what a good job I am doing in reading.	1,000	,239
bCM41 I am willing to work hard to read better than my friends.	1,000	,428
bCM44 It is important for me to see my name on a list of good readers.	1,000	,457
bCM47 I am happy when someone recognizes my reading.	1,000	,559
bCM49 I like being the only one who knows an answer in something we read.	1,000	,366
bCM52 I like to finish my reading before other students.	1,000	,409

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2,877	41,102	41,102	2,877	41,102	41,102
2	1,104	15,776	56,877			
3	,835	11,924	68,802			
4	,668	9,546	78,348			
5	,632	9,028	87,376			
6	,530	7,572	94,948			
7	,354	5,052	100,000			

Component Matrix[a]

	Component 1
bCM47 I am happy when someone recognizes my reading.	,748
bCM44 It is important for me to see my name on a list of good readers.	,676
bCM41 I am willing to work hard to read better than my friends.	,655
bCM1 I like being the best at reading.	,647
bCM52 I like to finish my reading before other students.	,640
bCM49 I like being the only one who knows an answer in something we read.	,605
bCM18 My parents often tell me what a good job I am doing in reading.	,489

Compliance

Reliability Statistics

Cronbach's Alpha	N of Items
,613	4

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,617
Bartlett's Test of Sphericity	Approx. Chi-Square	66,882
	df	6
	Sig.	,000

Communalities

	Initial	Extraction
bCO34 I do as little school work as possible in reading.	1,000	,115
bCO36 Finishing every reading assignment is very important to me.	1,000	,747
bCO46 I always try to finish my reading on time.	1,000	,631
bCO51 I always do my reading work exactly as the teacher wants it.	1,000	,445

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1,938	48,450	48,450	1,938	48,450	48,450
2	,976	24,401	72,850			
3	,693	17,324	90,175			
4	,393	9,825	100,000			

Component Matrix[a]

	Component 1
bCO36 Finishing every reading assignment is very important to me.	,864
bCO46 I always try to finish my reading on time.	,795
bCO51 I always do my reading work exactly as the teacher wants it.	,667

bCO34 I do as little school work as possible in reading.	-,339

Reading Curiosity

Reliability Statistics

Cronbach's Alpha	N of Items
,612	4

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,703
Bartlett's Test of Sphericity	Approx. Chi-Square	40,240
	df	6
	Sig.	,000

Communalities

	Initial	Extraction
bCU9 I have favorite subjects that I like to read about.	1,000	,449
bCU14 I like reading books about people in different countries.	1,000	,488
bCU19 I read to learn new information about topics that interest me	1,000	,459
bCU29 I read about my hobbies to learn more about them.	1,000	,463

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1,859	46,466	46,466	1,859	46,466	46,466
2	,783	19,577	66,043			
3	,695	17,372	83,415			
4	,663	16,585	100,000			

Component Matrix[a]

	Component
	1
bCU14 I like reading books about people in different countries.	,698
bCU29 I read about my hobbies to learn more about them.	,681
bCU19 I read to learn new information about topics that interest me	,678
bCU9 I have favorite subjects that I like to read about.	,670

Importance

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	,500

Bartlett's Test of Sphericity	Approx. Chi-Square	35,097
	df	1
	Sig.	,000

Reliability Statistics

Cronbach's Alpha	N of Items
,702	2

Communalities

	Initial	Extraction
bIM17 It is very important to me to be a good reader.	1,000	,770
bIM27 In comparison to other activities I do It is very important to me to be a good reader.	1,000	,770

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1,541	77,034	77,034	1,541	77,034	77,034
2	,459	22,966	100,000			

Component Matrix[a]

	Component
	1
bIM17 It is very important to me to be a good reader.	,878
bIM27 In comparison to other activities I do It is very important to me to be a good reader.	,878

Reading Challenge

Reliability Statistics

Cronbach's Alpha	N of Items
,715	5

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,777
Bartlett's Test of Sphericity	Approx. Chi-Square	83,951
	df	10
	Sig.	,000

Communalities

	Initial	Extraction
bRC2 I like it when the questions in the book make me think.	1,000	,566

bRC5 I like hard, challenging books.	1,000	,546
bRC8 If a book is interesting I don't care how hard it is to read.	1,000	,349
bRC16 I usually learn different things by reading	1,000	,426
bRC20 If the project is interesting I can read difficult material.	1,000	,454

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2,341	46,811	46,811	2,341	46,811	46,811
2	,807	16,139	62,949			
3	,714	14,281	77,230			
4	,618	12,369	89,599			
5	,520	10,401	100,000			

Component Matrix[a]

	Component
	1
bRC2 I like it when the questions in the book make me think.	,753
bRC5 I like hard, challenging books.	,739
bRC20 If the project is interesting I can read difficult material.	,673
bRC16 I usually learn different things by reading	,652
bRC8 If a book is interesting I don't care how hard it is to read.	,591

Reading Efficacy

Reliability Statistics

Cronbach's Alpha	N of Items
,556	3

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,626
Bartlett's Test of Sphericity	Approx. Chi-Square	24,474
	df	3
	Sig.	,000

Communalities

	Initial	Extraction
bRE7 I know that I will do well in reading next year	1,000	,545
bRE15 I am a good reader.	1,000	,550
bRE21 I learn more from reading than most students in the class.	1,000	,502

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1,597	53,221	53,221	1,597	53,221	53,221
2	,727	24,226	77,446			
3	,677	22,554	100,000			

Component Matrix[a]

	Component
	1
bRE15 I am a good reader.	,741
bRE7 I know that I will do well in reading next year	,738
bRE21 I learn more from reading than most students in the class.	,708

Reading for Grades

Reliability Statistics

Cronbach's Alpha	N of Items
,695	4

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,714
Bartlett's Test of Sphericity	Approx. Chi-Square	72,649
	df	6
	Sig.	,000

Communalities

bRG3 I read to improve my grades.	1,000	,561
bRG38 Grades are a good way to see how well you are doing in reading.	1,000	,556
bRG50 I look forward to finding out my reading grade.	1,000	,638
bRG53 My parents ask me about my reading grade.	1,000	,365

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2,119	52,970	52,970	2,119	52,970	52,970
2	,809	20,237	73,207			
3	,595	14,872	88,079			
4	,477	11,921	100,000			

Component Matrix[a]

	Component
	1
bRG50 I look forward to finding out my reading grade.	,798
bRG3 I read to improve my grades.	,749
bRG38 Grades are a good way to see how well you are doing in reading.	,746
bRG53 My parents ask me about my reading grade.	,604

Reading Involvement

Reliability Statistics

Cronbach's Alpha	N of Items
,705	6

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,739
Bartlett's Test of Sphericity	Approx. Chi-Square	100,720
	df	15
	Sig.	,000

Communalities

	Initial	Extraction
bRI6 I enjoy a long, involved story or fiction book	1,000	,354
bRI12 I make pictures in my mind when I read	1,000	,294
bRI22 I read stories about fantasy and make believe.	1,000	,495
bRI30 I like mysteries.	1,000	,439
bRI33 I read a lot of adventure stories.	1,000	,634
bRI35 I feel like I make friends with people in good books	1,000	,243

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2,459	40,981	40,981	2,459	40,981	40,981
2	,887	14,779	55,760			
3	,835	13,916	69,677			
4	,754	12,571	82,247			
5	,664	11,063	93,310			

6	,401	6,690	100,000

Component Matrix[a]

	Component
	1
bRI33 I read a lot of adventure stories.	,796
bRI22 I read stories about fantasy and make believe.	,704
bRI30 I like mysteries.	,663
bRI6 I enjoy a long, involved story or fiction book	,595
bRI12 I make pictures in my mind when I read	,542
bRI35 I feel like I make friends with people in good books	,493

Recognition for Reading

Reliability Statistics

Cronbach's Alpha	N of Items
,676	3

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,618
Bartlett's Test of Sphericity	Approx. Chi-Square	55,563
	df	3
	Sig.	,000

Communalities

	Initial	Extraction
bRN28 I like having the teacher say I read well.	1,000	,666
bRN37 My friends sometimes tell me I am a good reader.	1,000	,453
bRN43 I like to get compliments for my reading.	1,000	,720

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1,839	61,306	61,306	1,839	61,306	61,306
2	,732	24,394	85,701			
3	,429	14,299	100,000			

Component Matrix[a]

	Component
	1
bRN43 I like to get compliments for my reading.	,848
bRN28 I like having the teacher say I read well.	,816
bRN37 My friends sometimes tell me I am a good reader.	,673

Social Reasons for Reading

Reliability Statistics

Cronbach's Alpha	N of Items
,724	7

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,759
Bartlett's Test of Sphericity	Approx. Chi-Square	125,899
	df	21
	Sig.	,000

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2,700	38,576	38,576	2,700	38,576	38,576
2	1,077	15,380	53,956			
3	,882	12,607	66,563			
4	,722	10,317	76,880			
5	,623	8,898	85,778			
6	,545	7,790	93,568			
7	,450	6,432	100,000			

Component Matrix[a]

	Component
	1
bSO31 My Friends and I like to trade things to read.	,681
bSO48 I like to tell my family about what I am reading.	,671
bSO45 I talk to my friends about what I am reading.	,670
bSO39 I like to help my friends with their school work in reading.	,649
bSO11 I visit the library often with my family	,598
bSO42 I sometimes read to my parents.	,584
bSO26 I often read to my brother or my sister.	,467

Work Avoidance

Reliability Statistics

Cronbach's Alpha	N of Items
,542	3

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,549
Bartlett's Test of Sphericity	Approx. Chi-Square	30,143
	df	3
	Sig.	,000

Communalities

	Initial	Extraction
bWA13 I don't like reading something when the words are too difficult	1,000	,603
bWA24 I don't like vocabulary questions.	1,000	,291
bWA32 Complicated stories are no fun to read.	1,000	,695

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1,589	52,958	52,958	1,589	52,958	52,958
2	,885	29,489	82,447			
3	,527	17,553	100,000			

Component Matrix[a]

	Component
	1
bWA32 Complicated stories are no fun to read.	,834
bWA13 I don't like reading something when the words are too difficult	,776
bWA24 I don't like vocabulary questions.	,540

3. Self-efficacy
   Effort

Reliability Statistics

Cronbach's Alpha	N of Items
,498	4

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,567
Bartlett's Test of Sphericity	Approx. Chi-Square	30,320
	df	6
	Sig.	,000

Communalities

	Initial	Extraction
cEF1 I work hard in school	1,000	,484
cEF5 Most of my class-mates work harder on their homework than I do.	1,000	,412
cEF9 I always get good grades when I try hard.	1,000	,279
cEF22 I usually do not get good grades in math be-cause it is too hard.	1,000	,440

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1,614	40,362	40,362	1,614	40,362	40,362
2	1,082	27,057	67,418			
3	,682	17,055	84,474			
4	,621	15,526	100,000			

Component Matrix[a]

	Component
	1
cEF1 I work hard in school	-,695
cEF22 I usually do not get good grades in math be-cause it is too hard.	,664
cEF5 Most of my class-mates work harder on their homework than I do.	,642
cEF9 I always get good grades when I try hard.	-,528

Talent

Reliability Statistics

Cronbach's Al-pha	N of Items
,816	12

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,812
Bartlett's Test of Sphericity	Approx. Chi-Square	295,774
	df	66
	Sig.	,000

Communalities

	Initial	Extrac-tion
cTA2 I could get the best grades in class if I tried enough.	1,000	,228
cTA10 Sometimes I think an assignment is easy when the other kids in class think it is hard.	1,000	,349
cTA11 I am a good social studies student.	1,000	,440
cTA14 I am one of the best students in my class.	1,000	,423
cTA16 My teacher thinks I am smart.	1,000	,183
cTA18 I am a good math student.	1,000	,281
cTA19 My classmates usually get better grades than I do.	1,000	,168
cTA21 I usually understand my homework assignments.	1,000	,448
cTA25 I am a good reading student.	1,000	,263
cTA26 It is not hard for me to get good grades in school.	1,000	,410
cTA27 I am smart.	1,000	,468
cTA30 When the teacher asks a question I usually know the answer even if the other kids don't.	1,000	,444

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4,104	34,201	34,201	4,104	34,201	34,201
2	1,163	9,695	43,896			
3	1,062	8,850	52,746			
4	1,037	8,639	61,385			
5	,809	6,739	68,124			
6	,753	6,278	74,403			
7	,654	5,447	79,850			
8	,603	5,023	84,873			
9	,563	4,689	89,562			
10	,497	4,140	93,702			
11	,437	3,640	97,343			
12	,319	2,657	100,000			

Component Matrix[a]

	Component 1
cTA27 I am smart.	,684
cTA21 I usually understand my homework assignments.	,669
cTA30 When the teacher asks a question I usually know the answer even if the other kids don't.	,666
cTA11 I am a good social studies student.	,664
cTA14 I am one of the best students in my class.	,651
cTA26 It is not hard for me to get good grades in school.	,641
cTA10 Sometimes I think an assignment is easy when the other kids in class think it is hard.	,590
cTA18 I am a good math student.	,530
cTA25 I am a good reading student.	,513
cTA2 I could get the best grades in class if I tried enough.	,477
cTA16 My teacher thinks I am smart.	,428
cTA19 My classmates usually get better grades than I do.	-,410

Context

Reliability Statistics

Cronbach's Alpha	N of Items
,764	9

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,786
Bartlett's Test of Sphericity	Approx. Chi-Square	228,713
	df	36
	Sig.	,000

Communalities

	Initial	Extraction
cCO4 I would get better grades if my teacher liked me better.	1,000	,168
cCO7 I will graduate from high school.	1,000	,173
cCO13 When I am old enough I will go to college.	1,000	,327
cCO15 No one cares if I do well in school.	1,000	,427
cCO17 It is important to go to high school.	1,000	,361
cCO20 What I learn in school is not important.	1,000	,326
cCO23 It does not matter if I do well in school.	1,000	,612
cCO24 Kids who get better grades than I do get more help from the teacher than I do.	1,000	,267
cCO28 I will quit school as soon as I can.	1,000	,599

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3,260	36,218	36,218	3,260	36,218	36,218
2	1,444	16,049	52,267			
3	1,099	12,216	64,483			
4	,749	8,327	72,810			
5	,641	7,122	79,932			
6	,538	5,977	85,909			
7	,481	5,345	91,254			
8	,402	4,465	95,719			
9	,385	4,281	100,000			

Component Matrix[a]

	Component
	1
cCO23 It does not matter if I do well in school.	,782
cCO28 I will quit school as soon as I can.	,774
cCO15 No one cares if I do well in school.	,653
cCO17 It is important to go to high school.	-,600
cCO13 When I am old enough I will go to college.	-,572
cCO20 What I learn in school is not important.	,571
cCO24 Kids who get better grades than I do get more help from the teacher than I do.	,517
cCO7 I will graduate from high school.	-,416
cCO4 I would get better grades if my teacher liked me better.	,410

APPENDIX E

DISCRIPTIVES ABOUT CONSTRUCTS

Discriptives about Constructs

1. Reading Proficiency

Descriptives

	Mean	Std. Deviation
a1 What does the word “conservation” mean as it is used in paragraph 6?	,68	,468
a2 How does paragraph 9 connect to paragraph 6 in the article?	,55	,500
a3 Which idea best explains why Dr. McCarthy and his co-workers traveled to Kyrgyzstan?	,59	,495
a4 Which idea from the article best supports the main idea?	,70	,460
a5 How is the article mainly organized?	,54	,501
a6 How does the table at the end of “Saving Snow Leopards” support the main idea of the article?	,63	,484
a7 In paragraph 2, what does the sentence “They look just like fleecy rain-bows” suggest about the flowers?	,89	,309
a8 What does the word “welt” mean as used in paragraph 9?	,59	,495
a9 Read this sentence from paragraph 14. “His smile faded as he went on”. What does the sentence suggest about Professor Raglin?	,58	,496
a10 Read this sentence from paragraph 15. “At least they’re not poison,” Wendy said after Professor Raglin had left. What does the sentence suggest about Wendy?	,80	,403
a11 How does the setting of the story affect what happens to the Wooly – Puff?	,48	,502
a12 What does the phrase “smell funny” mean as it is used in paragraph 15?	,85	,363
a13 Which statement best states a theme of the story?	,23	,423
a14 What does paragraph 5 reveal about Paige?	,58	,496
a15 How do paragraphs 8 and 10 develop the plot of the story?	,38	,486
a16 Read this sentence from paragraph 14. Across from the kitchenette stood the bathroom, which contributed to the monster’s bad case of morning breath. What does the metaphor mean in the sentence?	,73	,446
a17 Which detail signals a change in the story?	,37	,486
a18 How does the author most develop Grandpa’s point of view in the story?	,47	,502
a19 Which detail would be most important to include in a summary of the story?(This question is fine)	,60	,493
a20 Which sentence best expresses the theme of the story?	,20	,403
Valid N (listwise)		

Statistics

RP Reading proficiency

N	Valid	104
	Missing	0
Mean		11,4327
Std. Deviation		3,69929
Skewness		,076
Std. Error of Skewness		,237
Kurtosis		-,600
Std. Error of Kurtosis		,469

Descriptive Statistics

	N	Mini-mum	Maxi-mum	Mean	Std. Devia-tion
a7 In paragraph 2, what does the sentence “They look just like fleecy rainbows” suggest about the flowers?	104	0	1	,89	,309
a12 What does the phrase “smell funny” mean as it is used in paragraph 15?	104	0	1	,85	,363
a10 Read this sentence from paragraph 15. “At least they’re not poison,” Wendy said after Professor Raglin had left. What does the sentence suggest about Wendy?	104	0	1	,80	,403
a16 Read this sentence from paragraph 14. Across from the kitchenette stood the bathroom, which contributed to the monster’s bad case of morning breath. What does the metaphor mean in the sentence?	104	0	1	,73	,446
a4 Which idea from the article best supports the main idea?	104	0	1	,70	,460
a1 What does the word “conservation” mean as it is used in paragraph 6?	104	0	1	,68	,468
a6 How does the table at the end of “Saving Snow Leopards” support the main idea of the article?	104	0	1	,63	,484
a19 Which detail would be most important to include in a summary of the story?(This question is fine)	104	0	1	,60	,493
a3 Which idea best explains why Dr. McCarthy and his co-workers traveled to Kyrgyzstan?	104	0	1	,59	,495
a8 What does the word “welt” mean as used in paragraph 9?	104	0	1	,59	,495
a9 Read this sentence from paragraph 14. “His smile faded as he went on”. What does the sentence suggest about Professor Raglin?	104	0	1	,58	,496
a14 What does paragraph 5 reveal about Paige?	104	0	1	,58	,496
a2 How does paragraph 9 connect to paragraph 6 in the article?	104	0	1	,55	,500
a5 How is the article mainly organized?	104	0	1	,54	,501
a11 How does the setting of the story affect what happens to the Wooly –Puff?	104	0	1	,48	,502
a18 How does the author most develop Grandpa’s point of view in the story?	104	0	1	,47	,502
a15 How do paragraphs 8 and 10 develop the plot of the story?	104	0	1	,38	,486
a17 Which detail signals a change in the story?	104	0	1	,37	,486
a13 Which statement best states a theme of the story?	104	0	1	,23	,423
a20 Which sentence best expresses the theme of the story?	104	0	1	,20	,403
Valid N (listwise)	104				

2. Motivation to Read

Statistics

		BCM Competi-tion	BCO Compli-ance	BCU Reading curiosity	BIM Im-portance
N	Valid	104	104	104	104

	Missing	0	0	0	0
Mean		3,2747	3,5048	3,3245	3,2596
Std. Deviation		,86718	,89969	,95333	1,10818
Skewness		-,217	-,445	-,282	-,228
Std. Error of Skewness		,237	,237	,237	,237
Kurtosis		-,375	-,383	-,306	-,500
Std. Error of Kurtosis		,469	,469	,469	,469

Statistics

		BRC Reading Challenge	BRE Reading efficacy	BRG Reading for grades	BRI Reading involvement
N	Valid	104	104	104	104
	Missing	0	0	0	0
Mean		3,3077	3,5160	3,5769	3,5913
Std. Deviation		,89004	,85000	,98044	,85455
Skewness		-,354	-,290	-,485	-,571
Std. Error of Skewness		,237	,237	,237	,237
Kurtosis		-,673	-,386	-,338	-,008
Std. Error of Kurtosis		,469	,469	,469	,469

Statistics

		BRN Recognition	BSO Social reasons for reading	BWA Work avoidance	MOT Reading motivation
N	Valid	104	104	104	104
	Missing	0	0	0	0
Mean		3,1122	2,7212	3,0481	3,2755
Std. Deviation		1,05778	,95061	1,04217	,63389
Skewness		-,328	,140	-,177	-,154
Std. Error of Skewness		,237	,237	,237	,237
Kurtosis		-,578	-,791	-,563	-,028
Std. Error of Kurtosis		,469	,469	,469	,469

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
bRI12 I make pictures in my mind when I read	104	1	5	4,06	1,105
bRI22 I read stories about fantasy and make believe.	104	1	5	3,90	1,355
bRI30 I like mysteries.	104	1	5	3,86	1,389
bRE15 I am a good reader.	104	1	5	3,85	1,237
bRE7 I know that I will do well in reading next year	104	1	5	3,82	1,022
bRC8 If a book is interesting I don't care how hard it is to read.	104	1	5	3,79	1,121
bRG38 Grades are a good way to see how well you are doing in reading.	104	1	5	3,76	1,281
bCO46 I always try to finish my reading on time.	104	1	5	3,73	1,316
bRI6 I enjoy a long, involved story or fiction book	104	1	5	3,70	1,269
bRG50 I look forward to finding out my reading grade.	104	1	5	3,69	1,394
bCU19 I read to learn new information about topics that interest me	104	1	5	3,60	1,195
bRN28 I like having the teacher say I read well.	104	1	5	3,58	1,220

bRC16 I usually learn different things by reading	104	1	5	3,56	1,261
bCM49 I like being the only one who knows an answer in something we read.	104	1	5	3,53	1,329
bRI33 I read a lot of adventure stories.	104	1	5	3,47	1,468
bRG3 I read to improve my grades.	104	1	5	3,45	1,269
bCO36 Finishing every reading assignment is very important to me.	104	1	5	3,43	1,413
bCO51 I always do my reading work exactly as the teacher wants it.	104	1	5	3,43	1,189
bIM17 It is very important to me to be a good reader.	104	1	5	3,42	1,275
bRG53 My parents ask me about my reading grade.	104	1	5	3,40	1,472
bCU9 I have favorite subjects that I like to read about.	104	1	5	3,37	1,488
bCM47 I am happy when someone recognizes my reading.	104	1	5	3,35	1,283
bRN43 I like to get compliments for my reading.	104	1	5	3,32	1,450
bCM1 I like being the best at reading.	104	1	5	3,31	1,191
bCM44 It is important for me to see my name on a list of good readers.	104	1	5	3,30	1,467
bCM52 I like to finish my reading before other students.	104	1	5	3,29	1,398
bRC20 If the project is interesting I can read difficult material.	104	1	5	3,29	1,259
bCM18 My parents often tell me what a good job I am doing in reading.	104	1	5	3,23	1,381
bCU29 I read about my hobbies to learn more about them.	104	1	5	3,18	1,519
bCU14 I like reading books about people in different countries.	104	1	5	3,15	1,385
bWA32 Complicated stories are no fun to read.	104	1	5	3,11	1,461
bIM27 In comparison to other activities I do It is very important to me to be a good reader.	104	1	5	3,10	1,250
bWA24 I don't like vocabulary questions.	103	1	5	3,09	1,456
bSO45 I talk to my friends about what I am reading.	104	1	5	3,00	1,435
bRC5 I like hard, challenging books.	104	1	5	3,00	1,514
bSO48 I like to tell my family about what I am reading.	104	1	5	2,95	1,609
bWA13 I don't like reading something when the words are too difficult	104	1	5	2,94	1,413
bCM41 I am willing to work hard to read better than my friends.	104	1	5	2,92	1,466
bRC2 I like it when the questions in the book make me think.	104	1	5	2,90	1,326
bRE21 I learn more from reading than most students in the class.	104	1	5	2,88	1,233
bSO42 I sometimes read to my parents.	104	1	15	2,88	1,939
bSO39 I like to help my friends with their school work in reading.	104	1	5	2,81	1,422
bSO11 I visit the library often with my family	104	1	5	2,70	1,480
bCO34 I do as little school work as possible in reading.	104	1	5	2,58	1,363
bRI35 I feel like I make friends with people in good books	104	1	5	2,56	1,447
bSO31 My Friends and I like to trade things to read.	104	1	5	2,44	1,357
bRN37 My friends sometimes tell me I am a good reader.	104	1	5	2,44	1,392
bSO26 I often read to my brother or my sister.	104	1	5	2,27	1,528
Valid N (listwise)	103				

3. Self-efficacy

Statistics

		EF Effort	TA Talent	CO Context	SE Self-efficacy
N	Valid	104	104	104	104
	Missing	0	0	0	0
Mean		3,7404	3,6546	4,0513	3,8112
Std. Deviation		,73729	,69938	,71355	,56032
Skewness		-,226	-,363	-,797	-,429
Std. Error of Skewness		,237	,237	,237	,237
Kurtosis		-,676	-,196	,062	,184
Std. Error of Kurtosis		,469	,469	,469	,469

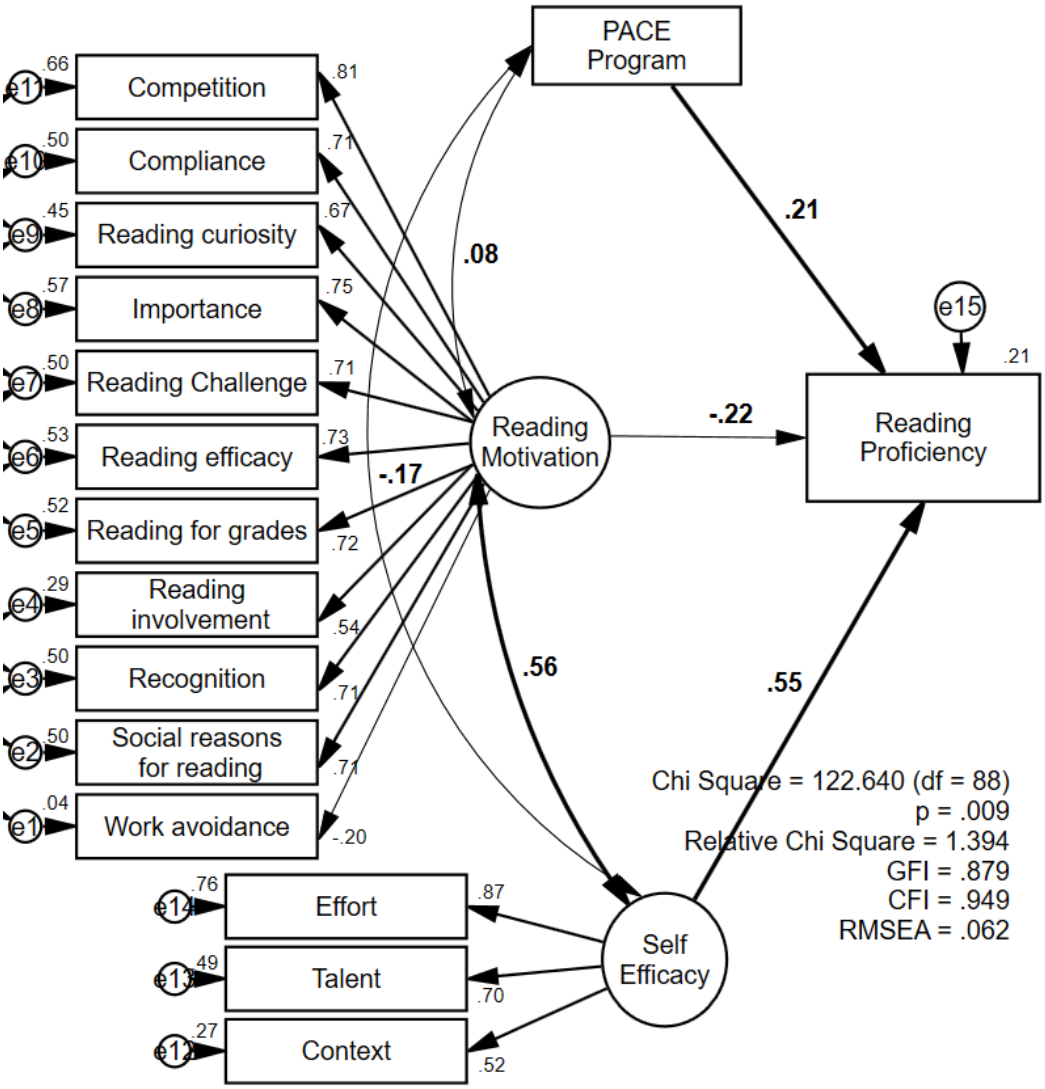
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
cCO17 It is important to go to high school.	104	2	5	4,55	,736
cCO7 I will graduate from high school.	104	1	5	4,44	,954
cTA27 I am smart.	104	1	5	4,25	1,031
cEF9 I always get good grades when I try hard.	104	1	5	4,23	,968
cEF1 I work hard in school	104	1	5	4,23	,968
cCO13 When I am old enough I will go to college.	104	1	5	4,19	1,025
cTA2 I could get the best grades in class if I tried enough.	104	1	5	4,18	1,050
cTA16 My teacher thinks I am smart.	104	1	5	3,93	1,248
cTA21 I usually understand my homework assignments.	104	1	5	3,85	1,213
cTA25 I am a good reading student.	104	1	5	3,80	1,177
cTA18 I am a good math student.	104	1	5	3,80	1,234
cTA10 Sometimes I think an assignment is easy when the other kids in class think it is hard.	104	1	5	3,57	1,349
cTA26 It is not hard for me to get good grades in school.	104	1	5	3,51	1,207
cTA11 I am a good social studies student.	104	1	5	3,50	1,231
cTA14 I am one of the best students in my class.	104	1	5	3,24	1,242
cTA30 When the teacher asks a question I usually know the answer even if the other kids don't.	104	1	5	3,23	1,232
cEF5 Most of my classmates work harder on their homework than I do.	104	1	5	3,05	1,339
cTA19 My classmates usually get better grades than I do.	104	1	5	3,00	1,329
cCO24 Kids who get better grades than I do get more help from the teacher than I do.	104	1	5	2,46	1,321
cEF22 I usually do not get good grades in math because it is too hard.	104	1	5	2,45	1,336
cCO4 I would get better grades if my teacher liked me better.	104	1	5	2,33	1,397
cCO15 No one cares if I do well in school.	104	1	5	2,25	1,493
cCO20 What I learn in school is not important.	104	1	5	1,92	1,220
cCO28 I will quit school as soon as I can.	104	1	5	1,91	1,286
cCO23 It does not matter if I do well in school.	104	1	5	1,85	1,291
Valid N (listwise)	104				

+

APPENDIX F

HYPOTHESIS TESTING



Analysis Summary

Notes for Group (Group number 1)
The model is recursive.
Sample size = 104

Variable Summary (Group number 1)

Your model contains the following variables (Group number 1)
Observed, endogenous variables
BWA
BSO
BRN
BRI
BRG
BRE

BRC
BIM
BCU
BCO
BCM
CO
TA
EF
RP
Observed, exogenous variables
P12
Unobserved, exogenous variables
e1
e2
e3
e4
RMo
e5
e6
e7
e8
e9
e10
e11
SEff
e12
e13
e14
e15

Variable counts (Group number 1)

Number of variables in your model:	33
Number of observed variables:	16
Number of unobserved variables:	17
Number of exogenous variables:	18
Number of endogenous variables:	15

Parameter Summary (Group number 1)

	Weights	Covariances	Variances	Means	Intercepts	Total
Fixed	17	0	0	0	0	17
Labeled	0	0	0	0	0	0
Unlabeled	15	15	18	0	0	48
Total	32	15	18	0	0	65

Models

Default model (Default model)

Notes for Model (Default model)

Computation of degrees of freedom (Default model)

Number of distinct sample moments: 136

Number of distinct parameters to be estimated: 48
Degrees of freedom (136 - 48): 88

Result (Default model)
Minimum was achieved
Chi-square = 122.640
Degrees of freedom = 88
Probability level = .009

Group number 1 (Group number 1 - Default model)

Estimates (Group number 1 - Default model)

Scalar Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
BRG	<---	RMo	1.535	.293	5.247	***	
BRE	<---	RMo	1.351	.256	5.286	***	
BRC	<---	RMo	1.356	.264	5.132	***	
CO	<---	SEff	.574	.117	4.904	***	
TA	<---	SEff	.759	.116	6.517	***	
EF	<---	SEff	1.000				
RP	<---	RMo	-1.751	1.084	-1.616	.106	
RP	<---	SEff	3.167	.868	3.648	***	
RP	<---	P12	1.688	.779	2.167	.030	
BWA	<---	RMo	-.412	.221	-1.867	.062	
BSO	<---	RMo	1.448	.249	5.822	***	
BRN	<---	RMo	1.626	.316	5.149	***	
BRI	<---	RMo	1.000				
BCM	<---	RMo	1.534	.277	5.536	***	
BCO	<---	RMo	1.387	.267	5.191	***	
BCU	<---	RMo	1.270	.253	5.025	***	
BIM	<---	RMo	1.823	.341	5.346	***	

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
BRG	<---	RMo	.719
BRE	<---	RMo	.730
BRC	<---	RMo	.706
CO	<---	SEff	.517
TA	<---	SEff	.697
EF	<---	SEff	.871
RP	<---	RMo	-.217
RP	<---	SEff	.550
RP	<---	P12	.210
BWA	<---	RMo	-.202
BSO	<---	RMo	.706

			Estimate
BRN	<---	RMo	.706
BRI	<---	RMo	.537
BCM	<---	RMo	.815
BCO	<---	RMo	.706
BCU	<---	RMo	.668
BIM	<---	RMo	.755

Covariances: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
RMo	<-->	SEff	.164	.046	3.581	***	
SEff	<-->	P12	-.049	.032	-1.514	.130	
RMo	<-->	P12	.017	.022	.772	.440	
e1	<-->	e3	.140	.070	2.010	.044	
e1	<-->	e7	-.159	.056	-2.826	.005	
e1	<-->	e11	.140	.053	2.647	.008	
e2	<-->	e4	.105	.052	2.023	.043	
e2	<-->	e6	-.066	.039	-1.686	.092	
e3	<-->	e11	.069	.049	1.410	.159	
e5	<-->	e10	.120	.050	2.401	.016	
e6	<-->	e7	.082	.040	2.048	.041	
e7	<-->	e9	.088	.042	2.083	.037	
e7	<-->	e11	-.063	.034	-1.830	.067	
e8	<-->	e11	-.106	.043	-2.463	.014	
e9	<-->	e10	-.068	.040	-1.704	.088	

Correlations: (Group number 1 - Default model)

			Estimate
RMo	<-->	SEff	.560
SEff	<-->	P12	-.167
RMo	<-->	P12	.080
e1	<-->	e3	.206
e1	<-->	e7	-.280
e1	<-->	e11	.308
e2	<-->	e4	.221
e2	<-->	e6	-.172
e3	<-->	e11	.186
e5	<-->	e10	.280
e6	<-->	e7	.227
e7	<-->	e9	.221
e7	<-->	e11	-.202
e8	<-->	e11	-.293
e9	<-->	e10	-.167

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
RMo	.209	.074	2.834	.005	
SEff	.408	.086	4.757	***	
P12	.209	.029	7.176	***	

	Estimate	S.E.	C.R.	P	Label
e1	.832	.116	7.151	***	
e2	.441	.068	6.488	***	
e3	.556	.088	6.313	***	
e4	.515	.074	6.910	***	
e5	.460	.071	6.470	***	
e6	.334	.052	6.360	***	
e7	.386	.061	6.284	***	
e8	.523	.087	6.027	***	
e9	.417	.063	6.634	***	
e10	.403	.062	6.479	***	
e11	.249	.047	5.272	***	
e12	.370	.056	6.643	***	
e13	.249	.045	5.596	***	
e14	.130	.049	2.660	.008	
e15	10.659	1.638	6.507	***	

Squared Multiple Correlations: (Group number 1 - Default model)

	Estimate
RP	.214
EF	.758
TA	.486
CO	.267
BCM	.663
BCO	.499
BCU	.447
BIM	.570
BRC	.498
BRE	.533
BRG	.517
BRI	.288
BRN	.498
BSO	.498
BWA	.041

Matrices (Group number 1 - Default model)

Factor Score Weights (Group number 1 - Default model)

	P12	RP	EF	TA	CO	BCM	BCO	BCU	BIM	BRC	BRE	BRG	BRI	BRN	BSO	BWA
SEff	-.10	.02	.50	.20	.10	.04	.01	.01	.02	.01	.02	.009	.00	.02	.01	-.01
RMo	.02	-.0	.03	.01	.01	.15	.05	.05	.08	.04	.06	.039	.02	.04	.06	-.03

Total Effects (Group number 1 - Default model)

	P12	SEff	RMo
RP	1.688	3.167	-1.751
EF	.000	1.000	.000
TA	.000	.759	.000

	P12	SEff	RMo
CO	.000	.574	.000
BCM	.000	.000	1.534
BCO	.000	.000	1.387
BCU	.000	.000	1.270
BIM	.000	.000	1.823
BRC	.000	.000	1.356
BRE	.000	.000	1.351
BRG	.000	.000	1.535
BRI	.000	.000	1.000
BRN	.000	.000	1.626
BSO	.000	.000	1.448
BWA	.000	.000	-.412

Standardized Total Effects (Group number 1 - Default model)

	P12	SEff	RMo
RP	.210	.550	-.217
EF	.000	.871	.000
TA	.000	.697	.000
CO	.000	.517	.000
BCM	.000	.000	.815
BCO	.000	.000	.706
BCU	.000	.000	.668
BIM	.000	.000	.755
BRC	.000	.000	.706
BRE	.000	.000	.730
BRG	.000	.000	.719
BRI	.000	.000	.537
BRN	.000	.000	.706
BSO	.000	.000	.706
BWA	.000	.000	-.202

Direct Effects (Group number 1 - Default model)

	P12	SEff	RMo
RP	1.688	3.167	-1.751
EF	.000	1.000	.000
TA	.000	.759	.000
CO	.000	.574	.000
BCM	.000	.000	1.534
BCO	.000	.000	1.387
BCU	.000	.000	1.270
BIM	.000	.000	1.823
BRC	.000	.000	1.356
BRE	.000	.000	1.351
BRG	.000	.000	1.535
BRI	.000	.000	1.000
BRN	.000	.000	1.626
BSO	.000	.000	1.448
BWA	.000	.000	-.412

Standardized Direct Effects (Group number 1 - Default model)

	P12	SEff	RMo
RP	.210	.550	-.217
EF	.000	.871	.000
TA	.000	.697	.000
CO	.000	.517	.000
BCM	.000	.000	.815
BCO	.000	.000	.706
BCU	.000	.000	.668
BIM	.000	.000	.755
BRC	.000	.000	.706
BRE	.000	.000	.730
BRG	.000	.000	.719
BRI	.000	.000	.537
BRN	.000	.000	.706
BSO	.000	.000	.706
BWA	.000	.000	-.202

Indirect Effects (Group number 1 - Default model)

	P12	SEff	RMo
RP	.000	.000	.000
EF	.000	.000	.000
TA	.000	.000	.000
CO	.000	.000	.000
BCM	.000	.000	.000
BCO	.000	.000	.000
BCU	.000	.000	.000
BIM	.000	.000	.000
BRC	.000	.000	.000
BRE	.000	.000	.000
BRG	.000	.000	.000
BRI	.000	.000	.000
BRN	.000	.000	.000
BSO	.000	.000	.000
BWA	.000	.000	.000

Standardized Indirect Effects (Group number 1 - Default model)

	P12	SEff	RMo
RP	.000	.000	.000
EF	.000	.000	.000
TA	.000	.000	.000
CO	.000	.000	.000
BCM	.000	.000	.000
BCO	.000	.000	.000
BCU	.000	.000	.000
BIM	.000	.000	.000
BRC	.000	.000	.000
BRE	.000	.000	.000
BRG	.000	.000	.000

	P12	SEff	RMo
BRI	.000	.000	.000
BRN	.000	.000	.000
BSO	.000	.000	.000
BWA	.000	.000	.000

Modification Indices (Group number 1 - Default model)

Covariances: (Group number 1 - Default model)

			M.I.	Par Change
e10	<-->	SEff	10.248	.116
e9	<-->	P12	12.205	-.097
e5	<-->	e15	4.866	-.487
e4	<-->	e15	4.284	.483
e3	<-->	e14	4.057	-.074

Variances: (Group number 1 - Default model)

	M.I.	Par Change

Regression Weights: (Group number 1 - Default model)

			M.I.	Par Change
CO	<---	BCO	5.337	.159
CO	<---	BRG	5.248	.145
BCO	<---	SEff	7.873	.291
BCO	<---	RP	5.119	.037
BCO	<---	EF	6.780	.216
BCO	<---	TA	4.273	.181
BCO	<---	CO	6.853	.224
BCU	<---	P12	11.734	-.468
BIM	<---	P12	4.186	.342
BRG	<---	RP	4.716	-.039
BRI	<---	RP	4.183	.038
BSO	<---	CO	4.756	-.201

Minimization History (Default model)

Itera-tion		Negative eigenval-ues	Condition #	Smallest eigen-value	Diameter	F	NTries	Ratio
0	e	10		-1.639	9999.000	767.965	0	9999.000
1	e	10		-.247	2.098	426.048	20	.315
2	e*	3		-.087	.788	276.107	5	.833
3	e*	0	259.088		.944	172.847	5	.757
4	e	0	119.713		.981	143.644	2	.000
5	e	0	146.354		.499	126.267	1	1.158
6	e	0	256.730		.455	123.348	1	1.191
7	e	0	497.505		.292	122.720	1	1.183
8	e	0	673.463		.147	122.642	1	1.101
9	e	0	741.058		.028	122.640	1	1.025
10	e	0	732.576		.001	122.640	1	1.001

Itera-tion		Negative eigenval-ues	Condition #	Smallest eigen-value	Diameter	F	NTries	Ratio
11	e	0	732.566		.000	122.640	1	1.000

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	48	122.640	88	.009	1.394
Saturated model	136	.000	0		
Independence model	16	795.570	120	.000	6.630

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.105	.879	.812	.569
Saturated model	.000	1.000		
Independence model	.324	.332	.243	.293

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.846	.790	.951	.930	.949
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.733	.620	.696
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	34.640	9.422	67.895
Saturated model	.000	.000	.000
Independence model	675.570	590.053	768.570

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	1.191	.336	.091	.659
Saturated model	.000	.000	.000	.000
Independence model	7.724	6.559	5.729	7.462

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.062	.032	.087	.225
Independence model	.234	.218	.249	.000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	218.640	237.617	345.571	393.571
Saturated model	272.000	325.767	631.637	767.637
Independence model	827.570	833.896	869.880	885.880

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	2.123	1.878	2.446	2.307
Saturated model	2.641	2.641	2.641	3.163
Independence model	8.035	7.204	8.938	8.096

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	94	103
Independence model	19	21

Execution time summary

Minimization:	.019
Miscellaneous:	.321
Bootstrap:	.000
Total:	.340

	Weights	Covariances	Variances	Means	Intercepts	Total
Fixed	17	0	0	0	0	17
Labeled	0	0	0	0	0	0
Unlabeled	15	15	18	0	0	48
Total	32	15	18	0	0	65

APPENDIX G

OTHER ANALYSIS

T-Test

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
BCM Competition	1 Male	51	2.9888	.85612	.11988
	2 Female	53	3.5499	.79213	.10881
BCO Compliance	1 Male	51	3.1961	.97892	.13708
	2 Female	53	3.8019	.70602	.09698
BCU Reading curiosity	1 Male	51	3.1513	.95251	.13338
	2 Female	53	3.5930	.74040	.10170
BIM Importance	1 Male	51	3.0882	1.20294	.16844
	2 Female	53	3.4245	.99226	.13630
BRC Reading Challenge	1 Male	51	3.1608	.92349	.12931
	2 Female	53	3.4491	.84116	.11554
BRE Reading efficacy	1 Male	51	3.4248	.88964	.12457
	2 Female	53	3.6038	.80876	.11109
BRG Reading for grades	1 Male	51	3.3088	.96123	.13460
	2 Female	53	3.8349	.93663	.12866
BRI Reading involvement	1 Male	51	3.3562	.96553	.13520
	2 Female	53	3.8176	.66608	.09149
BRN Recognition	1 Male	51	2.8105	1.06720	.14944
	2 Female	53	3.4025	.97261	.13360
BSO Social reasons for reading	1 Male	51	2.3417	.91610	.12828
	2 Female	53	3.0539	.83733	.11502
BWA Work avoidance	1 Male	51	2.9281	.97611	.13668
	2 Female	53	3.0519	.91378	.12552
MOT Reading motivation	1 Male	51	3.0367	.63573	.08902
	2 Female	53	3.5029	.51483	.07072
EF Effort	1 Male	51	3.7157	.76652	.10733
	2 Female	53	3.7642	.71457	.09815
TA Talent	1 Male	51	3.6520	.76607	.10727
	2 Female	53	3.6572	.63605	.08737
CO Context	1 Male	51	3.9041	.71493	.10011
	2 Female	53	4.1929	.68948	.09471
SE Self-efficacy	1 Male	51	3.7529	.60052	.08409
	2 Female	53	3.8672	.51827	.07119

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
BCM Competition	Equal variances assumed	.427	.515	-3.471	102	.001
	Equal variances not assumed			-3.466	100.640	.001
BCO Compliance	Equal variances assumed	9.046	.003	-3.630	102	.000
	Equal variances not assumed			-3.608	90.724	.001

BCU Reading curiosity	Equal variances assumed	6.128	.015	-2.646	102	.009
	Equal variances not assumed			-2.634	94.370	.010
BIM Importance	Equal variances assumed	1.354	.247	-1.558	102	.122
	Equal variances not assumed			-1.552	96.947	.124
BRC Reading Challenge	Equal variances assumed	1.645	.203	-1.665	102	.099
	Equal variances not assumed			-1.662	100.259	.100
BRE Reading efficacy	Equal variances assumed	.629	.430	-1.074	102	.285
	Equal variances not assumed			-1.072	100.209	.286
BRG Reading for grades	Equal variances assumed	.015	.903	-2.827	102	.006
	Equal variances not assumed			-2.825	101.574	.006
BRI Reading involvement	Equal variances assumed	5.991	.016	-2.846	102	.005
	Equal variances not assumed			-2.826	88.445	.006
BRN Recognition	Equal variances assumed	.355	.553	-2.959	102	.004
	Equal variances not assumed			-2.954	100.274	.004
BSO Social reasons for reading	Equal variances assumed	.283	.596	-4.141	102	.000
	Equal variances not assumed			-4.134	100.347	.000
BWA Work avoidance	Equal variances assumed	.176	.676	-.668	102	.506
	Equal variances not assumed			-.667	100.895	.506
MOT Reading motivation	Equal variances assumed	1.691	.196	-4.118	102	.000
	Equal variances not assumed			-4.101	96.187	.000
EF Effort	Equal variances assumed	.047	.830	-.334	102	.739
	Equal variances not assumed			-.333	100.807	.740
TA Talent	Equal variances assumed	.960	.329	-.038	102	.970
	Equal variances not assumed			-.038	97.207	.970
CO Context	Equal variances assumed	.014	.907	-2.097	102	.038
	Equal variances not assumed			-2.095	101.429	.039

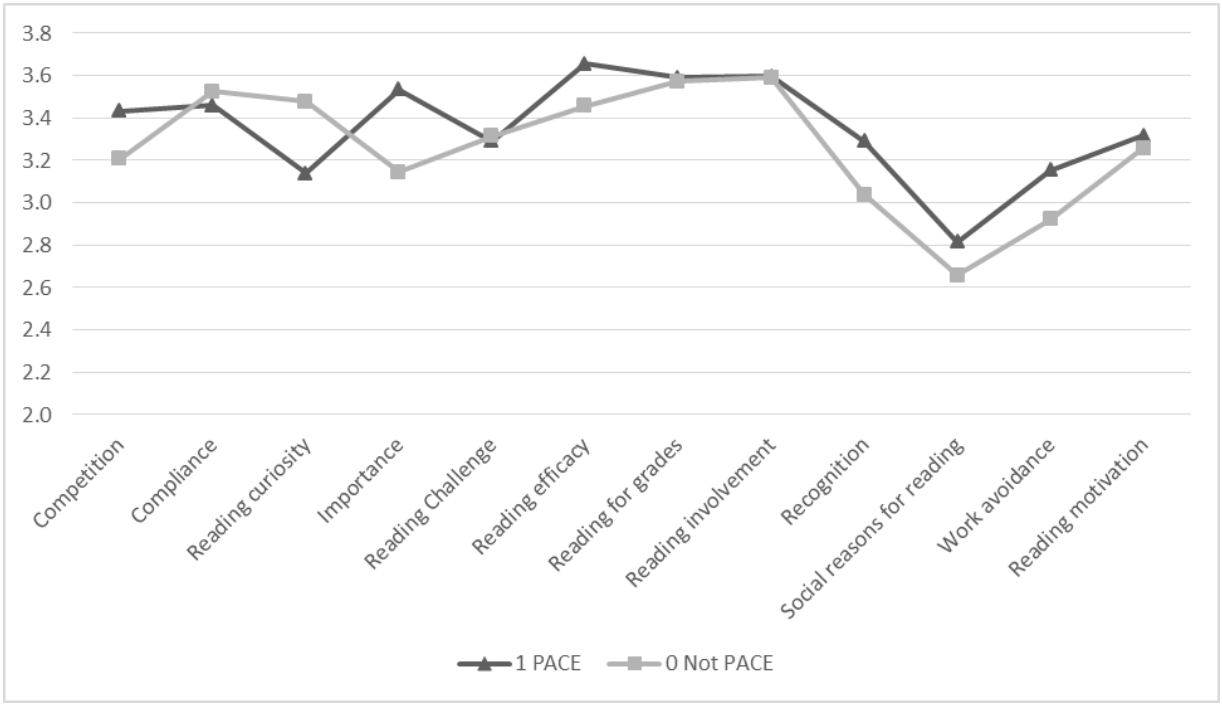
SE Self-efficacy	Equal variances assumed	.276	.601	-1.040	102	.301
	Equal variances not assumed			-1.037	98.637	.302

PACE / Non-PACE Comparisons

Table showing comparison of Motivation to Read means PACE/ non-PACE

	Competition	Compliance	Reading curiosity	Importance	Reading Challenge	Reading efficacy	Reading for grades	Reading involvement	Recognition	Social reasons for reading	Work avoidance	Reading motivation
= PACE	.4332	.4597	.1382	.5323	.2903	.6559	.5887	.5968	.2903	.8158	.1532	.3164
= ON-PACE	.2074	.5240	.4775	.1438	.3151	.4566	.5719	.5890	.0365	.6575	.9224	.2564

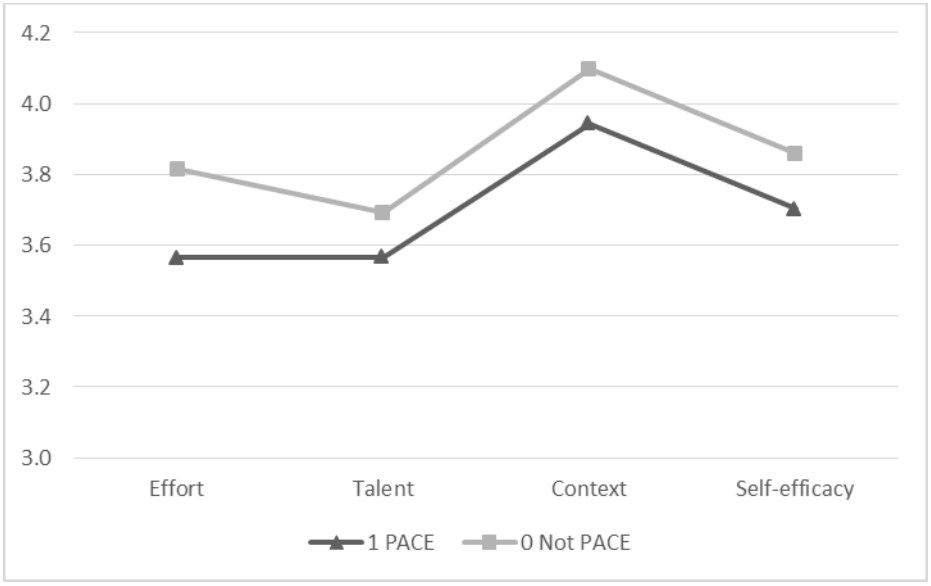
Motivation to Read Graph



	Effort	Talent	Context	Self-efficacy
1 PACE	3.5645	3.5672	3.9427	3.7019
0 Not PACE	3.8151	3.6918	4.0974	3.8575

Table showing comparison of Self-efficacy means PACE/ non-PACE

Self-efficacy Graph



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CURRICULUM VITAE

AUTLEY GILFORD MARRETT
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SUMMARY STATEMENT

I am a Commissioned Seventh-day Adventist educator who brings dedication to SDA values, competence, and an achievement -oriented attitude to my professional assignments. I create an environment that is success and goal- oriented; emotionally secure and welcoming. In addition, I work cooperatively and productively with my colleagues, parents and the school constituency, in a mutually respectful community.

PROFESSIONAL EXPERIENCE

Principal: Warren SDA Elementary School 2019- present

- ❖ Articulate goals and vision to school constituency
- ❖ Collaborate with School Board, parents, staff and students
- ❖ Plan and implement school improvement projects
- ❖ Promote school in constituency churches
- ❖ Supervise and motivate staff
- ❖ Secure grants
- ❖ Attend related conferences and meetings
- ❖ Prepare and present monthly reports to School and Church Boards

Teacher: Warren SDA Elementary School 2019- present
Springfield SDA Junior Academy 2007-2019

- ❖ Use instructional techniques that maximize student learning
- ❖ Individualize instruction to meet student needs
- ❖ Implement individualized reading program to improve students' competency
- ❖ Set high expectations and motivate students
- ❖ Counsel with and discipline students as needed
- ❖ Assess and report on students' progress
- ❖ Prepare students for Science Fair and Bible Quiz competitions
- ❖ Organize student outreach and witnessing events

- ❖ Conference with parents

Technology Administrator Springfield SDA Junior Academy 2013 - 2019

- ❖ Train teachers in use of Chalkable and Jupiter record keeping databases
- ❖ Provide guidance in entering data – attendance, grades etc
- ❖ Monitor the record-keeping system- Chalkable; Jupiter; NAD Data Roll-up
- ❖ Monitor accuracy of progress and report cards
- ❖ Troubleshoot and resolve issues
- ❖ Liaise with Conference Technology Administrator

Teacher: Grades 6- 9 1993 – 2008

Sunderland All-Age School,
Jamaica W.I.

- ❖ Teach all core subjects i.e. Religious Education, English Language Arts (ELA) Mathematics, Science, Social Studies and Physical Education
- ❖ Prepare students for National Placement Exams (GSAT and GNAT), for entry to high school using an integrated curriculum and constructivist teaching/ learning strategies.
- ❖ Implement Agricultural and Environmental Projects
- ❖ Sports Master - preparing students for inter and intra school competitions
- ❖ 4-H Club leader

Tutor 1997-2006
University of the West Indies
Distance Education Project
Jamaica, W.I.

- ❖ Tutor: Introduction to Sociology
- ❖ Introduce, reinforce and clarify concepts taught in Distance Mode
- ❖ Develop appropriate assessment strategies
- ❖ Marking and grading of examination scripts

Agricultural Extension Officer 1991-1992
Rural Agricultural Development Authority
Jamaica

- Instruct and supervise local farmers in the proper cultural methods of crop production and livestock rearing.
- Conduct training workshops
- Liaise between farmers and developmental agencies, marketing entities and banking institutions

Department Head 1988 - 1991
Teacher
Manager - Broiler Project
Agricultural Science Department
William Knibb Memorial High School

- Managed the Schools' Broiler Project (procurement; marketing and distribution; accounting)
- Prepared students for Regional Secondary Examinations (CXC)
- Selected textbooks and set practical examinations
- Sourced tools and equipment
- Organized teacher training
- Set high expectations and motivate students
- Counselled with and disciplined students as needed
- Graded projects, coursework and tests

EDUCATION

Central Connecticut State University
Master of Science in Reading and Language Arts, 2004
Comprehensive Examination

University of the West Indies
Bachelor of Science in Management, 1997

College of Agriculture, Science and Education
Postgraduate Diploma in Teaching (Honors), 2001
Associate of Science Degree in Agriculture, 1987