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Implementing The SIOP Model To Support English Language Learners

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IMPLEMENTING THE SIOP MODEL TO SUPPORT ENGLISH LANGUAGE LEARNERS

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ABSTRACT

Children who are English as a Foreign Language Learners (EFL) and/or English language learners (ELLs) are missing critical content-specific learning. These students are transitioning into mainstream classrooms, lacking basic literacy foundation skills, including vocabulary, grammar, comprehension, phonology, and meaning, which is preventing them from accessing grade-level content. Teachers who are charged with educating English language learners are not always provided with sufficient professional development that will allow them to meet the students' needs. ELL students need specific instructional strategies that will address their learning needs as well as language development. The purpose of this study was to examine the implementation of the SIOP Model at ACIS to support teachers in delivering subject-specific content while at the same time developing language skills of English language learners. Archival data was used in this case study to answer the following research questions: What strategies, interventions, and/or protocols from the SIOP Model are being use by teachers? What barriers and obstacles have teachers faced with implementing the SIOP Model? What are the perspectives of teachers regarding support and training that would improve their use of the SIOP Model?

The findings of the research indicate that teachers used different components of the SIOP Model. The increase in NWEA MAP reading scores over the course of a year suggests that using the SIOP Model had a positive impact on student learning. Thirty-nine percent of the

respondents found that there were no barriers to implementing the SIOP Model, which suggests that some teachers may be unaware of expectations, therefore, unaware of barriers. The four areas that emerged as areas for further research were Strategies, Response to Intervention (RTI), lesson preparation and assessment. Time management also emerged as a possible area for further training. The recommendations for future practice are to continue to fully implement the SIOP Model. School leadership should continue to support the model by providing dedicated professional development and ensuring that all teachers are provided with resources that support the SIOP Model. The student achievement data showed promising results for ACIS' first year of implementing the SIOP Model.

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CHAPTER 1: INTRODUCTION

Many countries outside of the United States have implemented language policies that require students to learn English as a Second Language or as a Foreign Language (Nunan, 2003). According to Jackson (2013), students who have learned a foreign language have an economic advantage because of their ability to communicate in more than one language. A countless number of international schools have English as the primary language of instruction for all subject areas, and the first language is taught as an additional language. International Consultants for Education and Fairs (ICEF) (2018) reports that there are 9,305 English-medium schools internationally. Many international and English-medium schools in other countries recruit and hire Western-trained teachers who have English as their native language. For example, the International Schools Consultancy Report (2016) indicated that 86% of the full-time teaching staff in Middle Eastern English-medium schools were from the United Kingdom or North America. According to Marshall (2019), the International Association of School Librarianship defines an international school as one that has an international curriculum, a multinational student body, and a multinational, English-speaking faculty. In these schools, the language of instruction is English; however, the first language of the students varies. The language dynamic challenges the schools to meet the needs of the English Language Learners (ELLs) as teachers are accountable for language and content learning. This is often done by adopting international standards, like World-Class Instructional Design and Assessment (WIDA) English Language Development standards, experimenting with various curricula employing best practices for ELLs and identifying a sheltered instruction model.

Rance-Roney (2009) points out that it is imperative that the curriculum for ELLs include both academic and social components, which is in contrast to the language arts curriculum slated

for native English speakers. One approach for making content more understandable for English language learners is *sheltered instruction* (Herrera & Murry, 2010). Sheltered instruction provides teachers with a model for lesson planning, giving ELLs access to content standards by integrating language standards. According to these authors, the full scope of the curriculum is used to focus on academic language proficiency as well as provide a richer conceptual understanding of the content.

Background

Freeman and Freeman (1988) report that in the early 1980's, when the ELL population in the US began to rise, content-area teachers sought solutions to make content comprehensible for the students in their classes. Initially, the term "sheltered" was coined as a way to identify the students who studied separately from the "mainstream" students and were being held to different standards (Freeman & Freeman, 1988). Today, ELLs are held to the same curriculum standards as native English students and are accountable for the same high-stakes standardized assessments. Sheltered English instruction presently purports that ELL students are learning content in conjunction with language skills.

There are four research-based models of sheltered instruction that are widely used in the United States and internationally: CALLA, GLAD, SDAIE and SIOP. These models vary slightly, however, most are based on similar research and share features such as focusing on language and content objectives, making content comprehensible and using alternative assessments that aims to gauge content knowledge regardless of English proficiency (Markos & Himmel, 2016).

The Cognitive Academic Language Learning Approach (CALLA) is an instructional method that consists of a five-step approach that teaches ELLs how to use learning strategies for

both content and language. The objective of this model is to support students in becoming independent learners, who are able to reflect on their learning. According to CALLA, this approach is for limited English proficient students at the intermediate and advanced levels of English proficiency, it was designed to be a passageway from English as a Second Language instruction to academic mainstream classrooms (Chamot & O'Malley, 1987).

Specially Designed Academic Instruction in English (SDAIE) is a teaching model that uses various strategies to support intermediate proficient ELLs as they transition to mainstream classrooms. Unlike English as a Second Language programs that focus on developing English language skills, SDAIE strategies focus on teaching content to students. Sobul (1995) describes SDAIE as ELLs receiving grade-level subject matter in English that has been created specifically for those who speak other languages.

The Guided Language Acquisition Design (GLAD) is a five-component instructional model aimed at supporting ELLs at all levels in mainstream classrooms. Teachers are trained to use 35 prescribed strategies and must be certified GLAD teachers. A distinct component of GLAD is the two-part training and coaching model. Part one is a two-day workshop where strategies and research are explored and Part two is a 4 to 5-day training that consists of classroom demonstrations, for the first half of the day, where one trainer teaches the students and another coaches the participating teachers on what the trainer is doing and why. Teachers then plan lessons using the strategies for the second half of the day (Brechtel, 2001).

The Sheltered Instruction Observation Protocol (SIOP) is an instructional model that has had proven results in assisting teachers in meeting the needs of ELLs at all levels (Echevarria, Short, & Vogt, 2008). According to Kareva and Echevarria (2012), the SIOP Model was developed to support the language of ELLs, with a focus on academic language and literacy

skills. SIOP consists of 30 strategies that span across their eight components. The model is also devised to meet various professional development needs for those who teach ELLs (Echevarria, Short, & Vogt, 2012).

Sheltered English Instruction requires teachers to teach content matter while teaching language skills. This model of instruction is unlike ESL programs in the past, where English language skills were taught in isolation and subject content was taught in the student's native language. When teaching ELLs it is important to distinguish the difference between implicit language learning and explicit language learning. Implicit language learning (learning in English), according to Ellis (2015), is the act of naturally acquiring language without conscious operations. In contrast, he describes explicit language learning (learning of English) as learners having the conscious knowledge of the new language that they are acquiring. Knowing the difference between the two will enable teachers to implement instructional strategies and create learning opportunities in a balanced manner. This balance of implicit and explicit language learning gives students access to grade level content while strategically embedding language support. According to Markos and Himmel (2016), when sheltered instruction is implemented properly, the content and language objectives become a guide for both student and teachers, allowing the students to take responsibility for their learning of content and language development.

Statement of the Problem

The teachers at American Curriculum International School (ACIS) are not effectively embedding foundations skills or concept development instructional strategies in their teaching to ELLs when they transition to mainstream classrooms. According to ACIS' standardized Northwest Evaluation Association Measures of Academic Progress (NWEA MAP) results for

grades 1 through 5 in 2016-2017, ELLs performed below proficiency in reading. During the 2016-2017 academic year, a sheltered English instruction program was in place to meet the needs of ELLs. This program had structured tiers that placed students into different English language learning pathways. The first pathway provides services for ELLs who are newly acquiring and developing the English language. The second pathway is for students who are developing and expanding on the English language. The third and final pathway is for students who are ELLs who are testing at near-native English-speaking levels or for native English-speaking students (ACIS, 2018). The program's pathways allow students to progress from the first level, where they are only partially mainstreamed, requiring dedicated language support to the final pathway where they are fully mainstreamed with native speakers. The problem with this model is that once the ELLs are in mainstream settings, there is very little support for their language development. As de Jong, Harper, & Coady (2013) point out, as more ELL students transition into mainstream classrooms, it becomes essential for mainstream teachers to be trained pedagogically to effectively meet the needs of these students. Markos and Himmel (2016) believe that addressing the needs of ELLs is often mistaken as "just good teaching", however, quality sheltered instruction requires teachers to be certified in their content area as well trained on how to effectively teach ELLs. Failing to provide effective instruction and adequate strategies to ELLs could hinder their academic success (DelliCarpini & Guler, 2013).

In an effort to meet the needs of the ELLs transitioning into mainstream classrooms, the school elected to adopt the SIOP Model. According to ACIS's strategic plan drafted in 2016, it was mandated that all classroom teachers, both current and incoming, be trained in the SIOP Model by December 2018. To date, all returning teachers have met the requirement either by

completing the training or by submitting documentation that demonstrates an equivalent level of training.

The SIOP model was adopted by ACIS as it is backed by sound research and is widely used throughout the world because of its positive impact on sheltered instruction (Murillo, 2013; Zito-Nash, 2017; Short, 2013). Additionally, it offers flexibility in its approach and has an abundance of companion resources, supporting various content areas. The SIOP Model is designed for all ELL proficiency levels and supports teachers in numerous areas of language instruction, including lesson planning, instructional strategies and assessments. SIOP also recognizes all teachers as language teachers and provides strategies to continue to develop language skills in ELLs.

Instructional delivery must be tailored to the specific needs of the ELLs and not just a duplicated version of the English language standards for native speakers. In order for the SIOP model to be effective, the implementation needs to be monitored, assessed, and supported. Echavarria et al. (2008) provided examples of implementation plans of the SIOP Model that have been used by other schools and districts. All of the plans had similar features such as an action plan detailing which components would be used, a lead teacher, advisor or coach, initial training, ways to assess the effectiveness of the program, and ongoing professional development for teachers. None of the plans were tested or endorsed by SIOP; however, they reflect practices that have taken place.

The teachers who do not have the experience and practice to identify and then address the needs of ELLs require protocols and a professional development plan to be in place. This supports the teachers and up-skills them to meet the learning needs of this population. Often the teaching and learning approaches are linguistically and culturally inaccessible and

irrelevant. Cartiera (2006) believes that many teachers lack the knowledge and understanding of what effective instruction for ELLs is. Often times, there is no differentiation between the learning of English and learning in English, two different aspects of language acquisition development. Professional development needs to be focused on addressing the specific needs of ELLs. The British Council (2014) reports that there are limited resources, guidelines, and access to quality professional development that supports English-medium Instruction. This limitation creates a challenge for schools in meeting the learning needs of ELLs. Li (2013) suggests that this challenge is exacerbated when the number of ELLs continues to grow, while the number of teachers remains the same. The growing number of students require a growing number of teachers, all of whom are not always provided with sufficient professional development to address the students' learning needs (Buxton,2008). The model selected needs to focus on content-based instruction while also being easily employed and personalized. It should be noted that all teachers, not just language teachers, are charged with meeting the needs of ELLs. Bouchard (2005) asserts that every teacher is a language teacher regardless of the content area; every classroom offers numerous opportunities for students to expand their language skills.

Purpose of the Study

English language instruction in the past at ACIS has been ineffective when meeting the needs of ELLs who have transitioned into mainstream classrooms. Today, ELLs are held to the same curriculum standards and high-stakes assessments as native English students; however, current placement within mainstream classrooms creates barriers when teachers lack instructional strategies to support their learning of content and language development. In an effort to meet these growing demands, the school leadership sought to find a model that was

effective in supporting teachers' delivery of instructional strategies that are tailored to meet the needs of ELLs. Moore and Sayer (2009) found that sheltered instruction models support ELLs learning content in conjunction with language skills.

Research suggests that sheltered instruction provides language-rich content instruction in English that is accessible to ELLs (Markos & Himmel, 2016). ACIS chose to implement the SIOP Model, which embraces the concept of sheltered instruction to support teachers' instructional strategies to ELLs. The SIOP Model provides a flexible framework for ACIS to support the development of teachers while assuring that the curriculum needs are met for ELLs. Therefore, the purpose of this study is to examine the implementation of the SIOP Model at ACIS to support instructional delivery to ELLs; in understanding subject-specific content while at the same time developing language skills.

Research Questions

The problem of practice indicated that there was a need to examine the implementation and effectiveness of the SIOP Model to ensure that teachers are able to meet the needs of ELLs as they transition into mainstream classrooms. Using the SIOP Model as the foundation, the study examined the current state of implementation after the first academic year, by answering the following questions:

1. What strategies, interventions, and/or protocols from the SIOP Model are being use by teachers?

2. What barriers and obstacles have teachers faced with implementing the SIOP Model?

3. What are the perspectives of teachers regarding support and training that would improve their use of the SIOP Model?

In this case study, archival data was used to evaluate the implementation and effectiveness of the SIOP Model.

Theoretical Framework

The theoretical framework guiding this study is the Language Acquisition Model (Cummins, 1981) and the content-based instruction (CBI) curriculum approach. Cummins (1981) Language Acquisition Model implies that there are two types of language skills, basic interpersonal communication skills (BICS) and cognitive academic language proficiency (CALP). BICS refers to the acquisition of social language (conversational language) and CALP being the academic language (the language used in school settings). He suggests that the social language is more prominent and is acquired much easier than the more complex academic language, which requires instruction. In line with Cummins work, content-based instruction is a communicative language approach that delivers content instruction concurrently with language skill development.

The NCES (2019) reported that there was an increase of ELLs from 3.8 million in 2000 to 4.3 million in 2016. Due to the growing population of English language learners, many schools have been faced with the challenge of addressing the needs of these learners. One curriculum development approach that has been widely implemented that has informed many English language learning models is content-based instruction (Moore & Sayer, 2009; Cenoz, 2015). The purpose of implementing a content-based instructional model is to support teachers in helping ELLs in navigating the challenge in learning subject-specific skills and content as well as learning language (Rodgers, 2014).

Assumptions, limitations, scope

This case study has several assumptions. It is assumed that the teachers who participated in this study have provided accurate and truthful responses. It is further assumed that teachers have been involved in implementing the SIOP Model within an elementary setting. Finally, participants were employees of ACIS.

The following items were limitations. All participants were employed by ACIS and were elementary level teachers. However, the study only included responses of those in lower elementary (pre-kindergarten through grade 2). Additionally, this study only utilized archival data, limiting the scope of responses. The data were collected in June of 2019 after the first year of implementation of the SIOP Model. The study was conducted at a single site international school located in southeast Asia; for that reason, it will be necessary to overgeneralize the findings.

Significance

This case study was conducted at an international school located in southeast Asia. The school is in its second year of requiring that all teachers be trained in the SIOP Model. To fulfill the requirement, teachers who do not have evidence of an equivalent training were given access to an online SIOP Model training course, funded by the school. The course is a four-week, Level 1 SIOP Training through Pearson (2010). It consists of 11 virtual sessions and three live sessions, which are led by an expert, one of which is a question and answer session led by one of the authors. Each registered participant receives an e-copy and a print copy *of Making Content Comprehensible for English Language Learners: The SIOP Model* (Echevarria et al., 2012).

This study is significant as it could potentially improve the delivery of instructional strategies to ELLs using the SIOP Model. According to Echavarria et al. (2008), the effective implementation of the SIOP Model is one factor that impacts the academic achievement of English learners. At times schools lack the coherence necessary to meet the needs of all learners and often challenged with embracing sound practices. Understanding how the SIOP Model is being used and the perceptions that the teachers have regarding the implementation will ultimately provide guidance to administrators and other researchers in meeting the growing demands required of the ELLs.

This study evaluated how the SIOP Model was introduced to the American Curriculum International School by looking at the resources that have been made available to teachers. The researcher also evaluated professional development needs and identified challenges that may be present. The findings of this research could potentially inform the school of the next steps in implementing the SIOP Model. This study was conducted on a single site, but the findings could potentially benefit other international schools in their quest to implement a structure for the SIOP Model. In addition, the results of this study could likely be transferred throughout different regions worldwide.

Definition of Terms

Academic language (see also CALP) - the standard formal language used in academic settings (Cummins, 1984).

Basic Interpersonal Communicative Skills (BICS) - is a concept developed by Cummins (1984) that refers to social language used in daily conversation in situations that are highly contextualized and less cognitively challenging.

Cognitive Academic Language Proficiency (CALP) - is a concept developed by Cummins (1984) that refers to the language most commonly used for academic purposes in a classroom setting and is typically decontextualized and cognitively challenging.

Content-based instruction (CBI) - an approach designed to deliver ELLs instruction in content matter and language development (Snow & Brinton, 1988).

English language learners (ELLs) - Students whose first language is not English and who are in the process of learning English. These students are limited in their English proficiency and require additional support to progress academically (Vialoando, 2005).

ELL Proficiency Levels - based on WIDA (2012) and TESOL (2006) there are five proficiency levels that measures the complexity of language development for the English Language Learner: Level 1 (Starting), Level 2 (Emerging), Level 3 (Developing), Level 4 (Expanding), and Level 5 (Bridging).

English-medium Schools - The use of the English language to teach academic subjects in countries or jurisdictions where the first language (L1) of the majority of the population is not English (Dearden, 2015).

International School - a school that has an international curriculum (example, International Baccalaureate), a multinational student body, and a multinational, English-speaking faculty (Marshall, 2019).

Language Proficiency - a student's level of competence in processing language through listening and reading and producing language through speaking and writing (WIDA, 2012).

Mainstream Classroom - is the classroom also referred to as the general education classroom, in which the curriculum, teaching, and learning are designed for native or proficient speakers of the dominant language (Brinton et al., 2003).

Social language (see also BICS) - the language used in conversation during social interactions (Cummins, 1984).

Learning in English - the act of learning content such as math, science and history in English (Ellis, 2005).

Learning of English- learning the English language, including listening, speaking, reading and writing (Ellis, 2005).

Professional development – is the delivery of staff development through various methods for the purpose of deepening content knowledge and improving professional practices based on goals aligned with the school. These methods utilize multiple sources of information to engage educators, like workshops, observations, readings, coaching and discussions (Echaverria et al., 2008).

Sheltered English Instruction - Freeman and Freeman (2005) define sheltered English instruction as an instructional approach that engages ELLs above the beginner level in developing grade-level, content-area knowledge, academic skills, and increased English proficiency. In sheltered English classes, a variety of scaffolding strategies are used to provide significant content area instruction, while concurrently adapting lesson delivery to suit their English proficiency level.

Sheltered Instruction Observation Protocol (SIOP) Model - An explicit framework for organizing instructional practices to optimize the effectiveness of teaching second and foreign language learners (Kareva and Echaverria, 2013).

WIDA English Language Development (ELD) Standards- characterizes the language that ELLs need to interact socially, instructionally, and academically with the curriculum,

educators and their peers in school. The WIDA standards exemplify how language is produced or processed within a given context (WIDA, 2012).

Conclusion

The purpose of this study is to examine the implementation of the SIOP Model at ACIS to support teachers in delivering subject-specific content while at the same time developing language skills of English language learners. This chapter has presented the problem of practice, the purpose of the study, and the research questions. It has also provided evidence significant rationale for the need to conduct this study. The upcoming chapters will provide an in-depth review of literature, a detailed account of the methodology and data collection process, an analysis and interpretation of the data and finally a presentation of findings, future implications and recommendations for additional research.

CHAPTER 2: LITERATURE REVIEW

This study takes a closer look at how teachers are implementing the SIOP Model in order to improve English proficiency, content knowledge, and skills for ELLs. In some cases, children who are English language learners are missing critical social and content-specific learning. These students are transitioning into mainstream classrooms lacking academic support.

The purpose of this literature review is to examine further how English language learners acquire language skills, identify how sheltered instruction can effectively support ELLs, and how the implementation of the SIOP Model brings it all together. To demonstrate an understanding of second language development, language acquisition, foundation skills and literacy, professional development for teachers, and the SIOP Model a comprehensive literature review was conducted.

The literature reviewed included various sources, including peer-reviewed articles, dissertations and reference texts. The main resource for the researcher was the University of New England Library, which included research databases such as ProQuest, ERIC, and other university dissertations. Additionally, the researcher utilized Google Scholar and a local research library. Key phrases and terms used to conduct the research were English language learning, SIOP Model, sheltered English instruction, language acquisition, content-based instruction, international schools, language development, professional development, ELL teachers and foundation skills. The literature search uncovered many relevant articles, however, the search was narrowed to reviewed studies and articles with similarities to the population, settings, and methodology of case studies

Many schools in the United States have implemented the SIOP Model using various approaches. Echavarria et al. (2008) acknowledge that there is no one set way to implement the

SIOP Model; schools design and develop their own implementation plans. However, the research does support that, in an effective model, professional development is implemented and sustained over time (Echavarria et al., 2008). Instruction must be designed to meet the needs of English language learners. Gaining an understanding of how English language learners acquire both language and foundational skills could impact the way this population of students is taught. Improved instruction would have a great effect on ELLs overall achievement. The purpose of the study is to provide a framework to support the implementation of the SIOP Model, through initial training, instructional practices, assessment monitoring, and ongoing professional development. This will provide ELLs supports that can leverage the learning of students.

<h3 style="text-align:center">Development of Second Language</h3>

The literature that has been reviewed thus far supports the idea that English language learners acquire language differently and benefit from different types of interventions. For example, Meirim, Jordaan, Kallenbach, and Rijhumal (2010) conducted a study in South Africa, where students were given increased English instruction (intervention). Over a period of three years, the majority of the English Additional Language (EAL) students improved within English instruction when participating in the intervention program (Meirim et al., 2010). Further research supports that there is a gap in the achievement of native English learners and ELLs. NCES (2012) data indicated that there was an achievement gap of nearly 40 points between native English students and ELLs at the 4th grade and 8thgrade levels. This gap suggests that there is an advantage to having English as one's primary language as it relates to foundational skills. Research suggests that dedicated teacher professional development has a positive impact. Babinski, Amendum, Knotek, Sánchez, and Malone (2018) tested a new professional development program for increasing the language and literacy skills of English language

learners. They looked at the use of instructional strategies and student outcomes. Babinski and colleagues (2018) found that there was a positive impact from the professional development program.

There has been a great deal of research focused on language and skill acquisition for ELLs (Alqahtani, 2019; Cummins, 1981; Li, 2013). Many of the studies looking at professional development in educators, but very few with how the programs are implemented. The proposed study could potentially fill this gap by looking at current trends in the skill development of ELLs and how to support teachers in their instructional practices. This would help identify gaps in instructional strategies and improve professional development practices for educators.

Language Acquisition

Naturally, children will begin to acquire the language spoken at home. Students who began school with little or no exposure to the English language are often at a disadvantage compared to native speakers. One question that often arises is whether or not there is a transfer of language skills from one language to another. Goodrich, Lonigan, and Farver (2013) conducted an experimental intervention and studied 94 preschool-age children who were randomly assigned to one of three groups. The first group was the control group; these students received their normal instruction through the Highscope curriculum, which is a play-based curriculum that was developed to enhance academics while fostering independence, creativity, decision-making, and problem-solving in young learners ("Highscope: Quality Early Education Through Active Learning," 2019). The other two groups participated in language intervention groups, and the students were pulled out for specific instruction in oral language, phonological awareness, and print knowledge. The researchers were looking to see if there was a transfer of language or learning in one language and knowledge in another. They found that there is a

transfer of certain skills, and they acknowledged the positive impact that the intervention may have had on the results. Goodrich et al. (2013) were looking for a transfer from Language 1 (L1) to Language 2 (L2) and vice versa. Regardless of language transfer, results indicated that different forms of intervention support language acquisition.

Pinpointing areas of language acquisition development and providing any form of intervention can be beneficial. With the rise in technology use, many educators are turning toward technology to provide intervention. Lacina (2004) discussed the importance of using technology to promote language acquisition in English language learners. She explored the history of the use of technology with ELLs, comparing the effectiveness of different practices. Initially, the technology focus was on drill and practice; this was proven to be ineffective in improving student achievement. The technology focus migrated to cognitive and language proficiency in English language learners. Today's instruction focuses on students constructing meaning through technology. Lacina (2004) shared that there was no one particular form of technology better for ELLs; it was just important that whatever was being used increased student interactivity.

Often times, native English speakers are appointed to teach ELLs as opposed to a teacher who shares the students' first language. Alqahtani (2019) conducted a study at a university in Saudi Arabia to examine the effectiveness of native English-speaking teachers on the language acquisition of ELLs. The study found that native English-speaking teachers performed better than their counterparts. Alqahtani found that the teaching strategies and methodologies of native English-speaking teachers were more closely aligned with the needs of the students.

Foundation Skills and Literacy

There is often a large achievement gap between English language learners and native English-speaking students. According to NCES (2012), since 2002, the National Assessment of Education Progress (NAEP) has reported an achievement gap in reading scores, showing that ELLs are outperformed by their native English counterparts. This gap suggests that there is an advantage to having English as one's primary language as it relates to foundation skills. In some cases, native English speakers with learning challenges were still able to outperform ELLs in some areas. Bowyer-Crane, Fricke, Schaefer, Lervåg, and Hulme (2017) observed 160 UK students (80 ELLs and 80 monolingual students) examining the effectiveness of oral language intervention. The study was conducted over a two-year period comparing the students at inception and then again after two years of formal schooling.

Bowyer-Crane et al. (2017) found that when comparing literacy, phonological, and language skills, the monolingual students out-performed the EAL students. The advantage was found in the foundation skills developed as native speakers. Bower-Crane et al. (2017) also say that a typical English native child may use prior vocabulary knowledge to support their deconstruction of language, while ELLs may encounter the spoken and written word concurrently. However, at the conclusion of the study, EAL students showed better spelling and word reading skills than their monolingual counterparts. This area of strength could be due to language transfer.

When looking at developing language foundation skills, all subject areas should be considered. Although it is important for language development to begin at home, it is equally important that language development is embedded throughout all subject areas in the school setting. Perez and Holmes (2010) examined four interrelated dimensions of the culturally and

linguistically diverse student biography. They focused on providing research-based strategies to teachers that will enhance the academic literacy of ELLs. Perez and Holmes (2010) concluded that it is crucial for all teachers, not just language teachers, to embed academic literacy in their content area material. This instruction is most effective when it reflects the sociocultural, linguistic, academic, and cognitive dimensions. ELLs lacking foundational skills is problematic because their learning needs are not being addressed. This problem spans all grade levels and content areas. Perez and Holmes (2010) note that secondary teachers are challenged by teaching content while addressing language skills. This is a disservice to the growth and the potential of these learners. Critical learning potential is being taken away from them because their basic needs as learners are being ignored. Al-Loom (2019) found that when teachers participate and engage in professional development in areas of language development, their instructional practices improve.

Professional Development of Educators

The professional development of teachers begins with their preservice training in teacher preparation programs. As the number of ELLs increases, universities and colleges are tasked with preparing teachers to effectively teach them. Wissink and Starks (2019) investigated elementary teachers' perceptions of preparedness to teach ELLs. In the case study, they examined five North American elementary teachers who were teaching at a small school in Haiti. Two teachers found that it was helpful that they learned a new language in their pre-service program, while another two teachers regretted not having more experience with ESL teachers and ELL students. Some of the teachers thought that it would have been advantageous to have had specific coursework on how to teach reading to ELLs, as well as coursework on teaching strategies for ELLs.

Often teachers do not have the experience to identify and then address the needs of ELLs. In many cases, the teachers are not being supported or developed to meet the learning needs of these particular students. The teaching and learning are linguistically and culturally inaccessible and irrelevant; the learning is not relevant to their culture and is instructed at their grade level. There is no differentiation between the learning of English and learning in English, two different aspects of language acquisition development. Professional development needs to be focused on addressing the specific needs of ELLs. Buxton, Lee, and Santau (2008) point out that professional development is focused on single strategies and does not cover methodical techniques that promote rigorous classroom practices. It would benefit both students and teachers if the focus on professional development addressed the needs of language learners.

Burstein, Shore, Sabatini, Moulder, Lentini, Biggers, and Holtzman (2014) observed two studies using an online web-based teacher professional development application. The program was designed to enhance teachers' linguistic awareness and to support teachers in the development of language-based instruction and scaffolding for English language learners. There were 112 teachers enrolled in the online course. In the first study, they examined whether the teacher professional development program was successful in yielding learning growth in teachers. The study observed three areas; knowledge of language barriers in text, knowledge of linguistic structures, and the teachers' ability to identify linguistic features in a text. They found that in the area of knowledge of language barriers in text, there was a significant and positive change. There was a change in the areas of knowledge of linguistic structures and the teachers' ability to identify linguistic features, but it was not significant. Overall, the first study showed evidence that the teachers' linguistic knowledge increased after receiving the teacher professional development course.

Burstein et al.s' (2014) second study examined if the online teacher professional development course, used in the first study, could be adapted and implemented in a school-based setting. They studied eight teachers from four U.S. middle schools from various subject areas. The ELL student population was 100% in five of the classes, while the other three classes had 25%, 50%, and 90%, respectively. The participants completed the same teacher professional development course as those in the first study. The only difference is that the teachers in this study were required to prepare an original unit of study using the program to be delivered to their perspective classes. Although the study was conducted as a limited trial, Burstein et al. (2014) did find that implementing the program was feasible, and teachers were able to learn from the training material.

Babinski, Amendum, Knotek, Sánchez, and Malone (2018) tested a new professional development program for increasing the language and literacy skills of English language learners. They observed 45 teachers from 12 elementary schools within three school districts. The teachers were observed three times during the school year. They looked at the use of instructional strategies and student outcomes. Babinski et al. (2018) found that there was a positive impact from the professional development program. This illustrates that specific, deliberate, and purposeful professional development could yield positive results.

One challenge with professional development is getting teacher buy-in. Often, attitudes toward professional development impact its effectiveness. Molle (2013) examined the facilitation of professional development for educators who specifically worked with English language learners. This comparative research study investigated two iterations of the same professional development program at different research sites. The study examined one facilitator looking at the following areas: context as participation, context as ideology, and content. Molle

(2013) stated that the purpose of this approach was to provide guidance to teacher educators and professional developers working with current and future teachers of culturally and linguistically diverse children. Emphasis needs to be placed on providing quality professional development that is sustainable and duplicable. Molle (2013) also points out that teacher learning can be improved by focusing on their strengths rather than their weaknesses in the same manner in which we approach student learning.

Instructional Strategies

When approaching ELLs and learners in general, effective instructional strategies are important. Teachers should consider how to reach these students, what interventions should be provided, and what the most impactful mediums are to yield results. Calderón, Slavin, and Sánchez (2011) reviewed programs and practices that improve reading and language outcomes in English language learners. They identified eight elements: a) school structures and leadership, b) language and literacy instruction, c) integration of language, literacy, and content instruction in secondary schools, d) cooperative learning, e) professional development, f) parent and family support teams, g) tutoring, and h) monitoring implementation and outcomes. They found that the quality of instruction is what matters most when educating English language learners. Quality instructional strategies should be emphasized in all grades; however, it is crucial for the primary years to support foundation skill development. Calderón (2001) acknowledges that interventions are necessary at all grade levels but believes that it is easier and more manageable to build the foundation skills in the early years' programs developing new skills as opposed to addressing learning gaps.

In another study, López (2010) examined the impact of using interactive whiteboards to improve the achievement of English language learners. She studied students in grades 3 and 5

across three elementary schools, using the Texas Assessment of Knowledge and Skills (TAKS) state benchmark test to measure outcomes. Teachers participating in the project were given the interactive whiteboard tools and some criteria for use. The results indicated that there was a positive effect of using the interactive whiteboards with English language learners as the use of technology engages the learners.

Instructional strategies should not be limited to technology usage. An effort to embed language development across all content areas should be made. Wiley and McKernan (2016) studied the impact of explicit language learning on both student writing and teacher practice. They separated a sample of students into four groups based on their levels of English-language proficiency. Specific instructional tools were used to explicitly teach writing within the context of Writer's Workshop to observe any impact on writing in English language learners. They found no trends among the groups; however, there were findings that prompt further research, as some of the subjects made gains, individually.

The SIOP Model

The SIOP Model was initially developed in 1996 as a research project that was funded by the Center for Research on Education, Diversity and Excellence (CREDE). The project spanned the years 1996 to 2003 as an initiative to support the United States' population of diverse students, which included a study of sheltered English instruction (Echavarria et al., 2008). Through this research, an explicit model for sheltered instruction was created and used to conduct field experiments to assess its effectiveness. In 1997, a preliminary study validated the SIOP Model as a reliable measure of sheltered instruction (Echavarria et al., 2004).

The SIOP Model provides English language teachers with support in modeling strategies that have been proven to be successful in teaching ELLs content and language skills (Echavarria et al., 2008). The training (online or face to face), a form of professional development, is the first step in implementing the SIOP Model. The next step is to implement the eight SIOP components, which include preparing lessons, building background, and using strategies. Throughout the process, teachers should be evaluating the implementation by monitoring the influence on the language acquisition and language development of students, as well as assessing student growth and teaching practices. The process continues with ongoing professional development and coaching that meets the needs of the teachers based on their progress. Figure 1 illustrates the conceptual framework for implementing the SIOP Model to support English language learners.
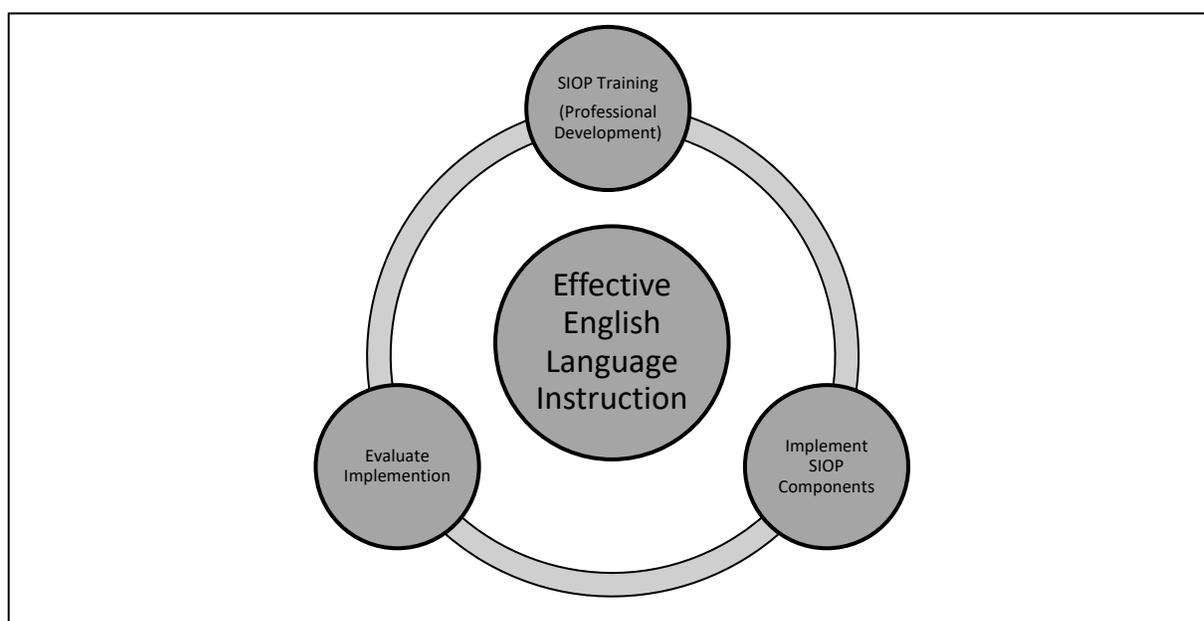
Figure 1: Framework for effective English language instruction, centered on the understanding of the SIOP Model (Echavarria et al., 2008)

The SIOP was initially used as a means to measure the effectiveness of sheltered instruction for English language learners. It advanced into a framework for developing lesson

planning and supporting instructional practices. The framework is comprised of 30 features that are clustered into eight components (Echavarria et al., 2004). The eight components are described below:

1. Lesson Preparation - Preparing lessons with content and language objectives and meaningful activities and materials.

2. Building Background - Building background knowledge of students through linking concepts with prior knowledge and emphasizing key vocabulary.

3. Comprehensible Input - Providing comprehensible input with clear speech and a variety of techniques.

4. Strategies - Using strategies to scaffold and question learners and get them to practice learning strategies.

5. Interaction - Providing opportunities for student interaction.

6. Practice/Application - Developing manipulatives and activities for students to practice and apply content and language knowledge.

7. Lesson Delivery - Delivering the objective-aligned lesson with appropriate pacing and high student engagement.

8. Review and Assessment - Reviewing key concepts and vocabulary and assessing student comprehension

SIOP is a widely used instructional model, implemented in school-wide, district-wide, and in some places statewide. The SIOP Model framework is considered to successfully enhance the effectiveness of sheltered instruction (Echavarria et al., 2008). Although most of the research available regarding implementing the SIOP Model is based in the United States,

there are studies that have examined the implementation in international schools outside of the U.S.

While the SIOP Model is comprised of eight components, some schools opt to adapt the model by using a selection of the components. Murillo (2013) conducted an action research project examining how the delivery of English lessons in a Columbian Public School would be impacted by adapting some components of the SIOP Model. The two components that he selected to study were Lesson Delivery and Lesson Preparation for the teaching of English in sixth grade at one school. The emphasis of the study was to explore how teachers could adapt the features from the SIOP Model component Lesson Delivery. However, he found that it was vital that teachers adapt the Lesson Preparation component before moving on to the Lesson Delivery component. The participants planned and delivered three English lessons by "adapting the following features from the SIOP Model: Content Objectives and Language Objective Clearly Supported, Students Engaged 90% to 100% of the Period" (Murillo, 2010, p. 178).

Murillo (2013) used various sources to collect data; observation checklists, field notes, student and teacher surveys, and artifacts. Observation checklists were used during the lesson deliveries. Field notes were written to document instances of when the mother tongue Spanish was used by the English teacher. The surveys were given to six English teachers and 41 sixth grade students to obtain their opinion about the use of Spanish during English Lessons. Murillo (2013) found that by implementing the adapted Lesson Delivery component of the SIOP Model, students were more engaged, and teachers used Spanish only to engage or build rapport with students. This study supports the idea that implementing and adapting selected components of the SIOP Model could be beneficial to ELLs.

Similar to Murillo (2013), Al-Aloom (2019) studied the implementation of a selected component of the SIOP Model, Strategies. She assessed which SIOP Model strategies would best meet the needs of Arab ELLs. Five teachers were observed while teaching Arab ELLs, and they were all individually interviewed. In addition to identifying SIOP Model strategies that worked best, she also wanted to understand the views, perspectives, and challenges that the teachers had regarding Arab ELLs. The participants shared similar challenges in teaching Arab ELLs, for example, the transition from writing from left to right and having difficulty with vocabulary. She identified student-teacher interaction, configured learning groups, and student collaborations as effective SIOP model strategies that meet the needs of Arab ELLs. It was also discovered that using visual aids, hands-on activities, pictures, and flashcards was beneficial in simplifying the academic language. She concluded that because there are no specific strategies tailored for Arab ELLs, adapting the SIOP Model proved to be effective.

As the number of ELLs continues to grow across the globe, schools continue to be challenged in meeting the needs of these students. The SIOP Model has been successful in providing schools with an instructional framework that supports the teachers in their development with proven strategies. The purpose of the SIOP Model is to enable quality content area instruction for ELLs. The SIOP Model, comprised of eight components, provides ways to consolidate the features into one instrument, making it easy to align with various approaches associated with current reform efforts (Echavarria et al., 2008).

This study is focused on research that emphasizes the needs of the English language learners and the support for the English language teachers. In particular, the literature review focused on language acquisition, instructional strategies, professional development of ELL teachers, and the SIOP Model linking it all together. The start and endpoint of the conceptual

framework is professional development. In order for teachers to effectively teach ELLs, they

need to have an understanding of how language is acquired and the instructional strategies that

support their learning. An effective and cohesive professional development needs to incorporate

the perspectives of all stakeholders, including the teachers, administration, and students. The

SIOP consists of a professional development model that is coherent and considers the needs of

teachers at various stages of their careers (Collinson & Ono, 2001).

Theoretical Framework

Cummins (1981) theory of language acquisition and content-based instruction (CBI) are

the two bodies of work that influences this study. Cummins has dedicated his research to the

development of second language learners and bilingualism. Most of his work is surrounded by

the basic interpersonal communicative skills (BICS) and cognitive academic language

proficiency (CALP) language acquisition theory, however, his other work places emphasis on

learning equity and education policy. Content-based instruction (CBI) is an approach to

curriculum development for ELLs that focuses on content instruction while embedding language

skills. CBI falls under a larger framework of communicative language teaching that engages

learners in language development for meaningful purposes (Snow, 2005).

Theory of CALP and BICS

The framework is founded on the premise of Cummins' (1981) language acquisition

theory that there is a distinct difference between social language, which he referred to as basic

interpersonal communicative skills (BICS) and academic language, which he referred to as

cognitive academic language proficiency (CALP). This study looks specifically at academic

language (CALP). Cummins (1984) explained that CALP is the learner's ability to read, write,

and communicate on a level effective enough to excel in their academic pursuits. The concept,

however, goes beyond those basic attributes of the language, extending to how learners use CALP to make decisions, comprehend learning, compare, contrast, evaluate, and classify their lessons in the classroom. According to Cummins (1981), BICS is the social language that is learned and practiced outside of the classroom in social settings. Cummins (1981) says that this type of language skill is not as cumbersome as academic language and takes about six months to two years to be in full bloom. He states that CALP, on the other hand, places greater emphasis on academic skills and focuses on the learner's ability to demonstrate proficiency. It should be noted that CALP extends beyond the basics of language development, it impacts the students' ability to compare, contrast, make decisions, comprehend, evaluate, and classify their learning in the classroom (Cummins, 1981).

Content-Based Instruction

Content-based instruction (CBI) is a curriculum design approach that seeks to integrate content language with language skill development (Snow, 2005). Stoller (2008) states that content-based instruction is 'an umbrella term' for various models of language instruction that combine language and content learning, even when the emphasis on language and content differs. Mohan (1986) was one of the first researchers that sought out an approach that combined language learning and content learning, focused on language as the channel of learning and recognized the content as the context. Horn (2011) states that successful CBI classrooms offer students numerous opportunities to continuously engage with the content they are learning. He also reports that these opportunities typically encompass learning tasks and projects that encourage student collaboration. Many educators have found that the CBI approach has been successful in helping students develop academic language skills (Eurydice 2006; Owens 2002; Rodgers 2006). Although the CBI approach has proven to be successful, it

must be noted that there are challenges in executing this approach. CBI requires tremendous effort on the part of both teachers and students. Students cannot always be expected to automatically acquire the new language and not all teachers will know how to provide instruction that gives sufficient consideration to both the academic content and new language (Maasum, Maarof, Zakaria, & Yamat, 2012).

Many researchers (Chamot & O'Malley, 1987; Echavarria et al., 2008; Sbul, 1995) have attempted to define this approach, and although different models have been the result, they all share similar features. According to Brinton and Holten (2001) the following features are common in content-based instruction models:

- The curriculum is organized and based on the content standards.

- Content and language skills are taught concurrently.

- Language learning is filtered through the content in a way ELLs can understand.

- Content-based instruction provides meaningful opportunities for language and content teaching and learning.

There are several types of communicative language teaching approaches (immersion, sheltered instruction and English as a second language) that support ELLs in language learning and using language authentically (Snow, 2005). The research focus for this study examined a sheltered English instruction model, which is a CBI approach.

Conclusion

The number of English language learners increases each year. Not only in the US, but more and more countries are implementing language policies that specify English will be the language for teaching and learning, regardless of the home language. With this increase in English language learners, it is imperative that the learning needs of these students be addressed.

The focus should be placed on the professional development of teachers; this is critical in affecting change. Professional development can be designed to address language acquisition, foundation and literacy skills, and instructional strategies. Additional research needs to be conducted in effectively teaching English language learners, particularly looking at effective instructional strategies and interventions that can then be passed along to educators by way of appropriate professional development. The SIOP Model research cites several implementation plans that have proven to be successful (Echavarria et al., 2008).

CHAPTER 3: METHODOLOGY

The purpose of this study is to analyze the effectiveness of the SIOP Model implementation in an international school setting. The study used a qualitative research design of a case study of one international school in Southeast Asia. This approach allowed the researcher to collect various data sources and then conduct an analysis of the data collected (Creswell, 2008). The methods used for this case study included analyzing archival data regarding the implementation of the SIOP Model. Archival data was taken from the results of a survey that was administered to prekindergarten through grade 12 teachers at ACIS who participated in the SIOP Model training or demonstrated an equivalent training. Of the 55 responding teachers, 28 of the participants were selected to construct a smaller group that represents the elementary level teachers who responded to the survey. The researcher also compared NWEA MAP reading test data from 2017-2019. The school administration provided consent to use the data, as all identifiable participant data has been removed.

The study examined the effectiveness of implementing the SIOP Model in a school that has mandated the training to all classroom teachers. The results were used to examine the effectiveness of instructional practices as it relates to ELLs. The archival data from an end-of-school survey was analyzed and coded to answer the following questions:

1. What strategies, interventions, and/or protocols from the SIOP Model are being used by teachers?

2. What barriers and obstacles have teachers faced with implementing the SIOP Model?

3. What are the perspectives of teachers regarding support and training that would improve their use of the SIOP Model?

Setting

The study took place at the American Curriculum International School (ACIS), where the researcher serves as an elementary level curriculum coordinator. ACIS lies in the heart of Southeast Asia, a culturally-rich and linguistically-diverse environment. The national, cultural, and linguistic backgrounds of the student body and staff are diverse. There are over 65 countries and 40 languages represented in the student body, as well as teachers and staff from a multitude of national and cultural backgrounds with a wide array of language proficiencies. The school is divided into two campuses. One campus is for early year students, from nursery to Kindergarten 2, and the other campus houses grades 1-12.

There is a total of 3100 students between the two campuses. There are 540 students who are in the sheltered English and mainstream English support programs. Although many students have English as a second language and are classified as ELLs, not all are in special programs or receive additional language support. There are 402 students who receive student support services, 86 of which receive Tier 3 intensive support (ACIS Evaluation Report, 2019). ACIS is a private, tuition-based, international school, all students are from over 73 countries outside of the local country.

There are 438 teachers throughout the school; 54 of them are in pre-kindergarten through second grade, of those 50 are female and four are male. Twenty-two teachers are designated as English as an additional language teacher, six of which service pre-kindergarten through second grade.

Participants

Through the evaluation of archival data collected from an ACIS survey administered at the end of the 2018-2019 academic year, participants in the study included 55 teachers from pre-kindergarten through grade 12. A purposeful sampling was conducted by studying the 28 responses from all of the teachers in pre-kindergarten through second grade. Creswell (2008) defines purposeful sampling as the intentional selection of individuals and sites to understand a central phenomenon.

Potential participants are full-time, homeroom, and specialist teachers at the American Curriculum International School. All participants have been employed at the school for one year or longer teaching in grades Pre-Kindergarten to grade 2 and are elementary certified educators. Each participant has been required to engage in the SIOP Model training, either provided by the school or by showing evidence of equivalent training. The survey was distributed to the entire school teaching staff as a voluntary, end-of-year collection. The sample was from all prekindergarten to grade 2 teachers extracted from the total number of responses.

Data

Permission was obtained from the school system's superintendent to access the data. The researcher used various archival data from the American Curriculum International School including data retrieved from a survey taken in June 2019, NWEA MAP reading test scores from 2017-2019, SIOP related professional development materials, Professional Learning Committee (PLC) minutes, meeting notes, strategic planning documents, and faculty meeting agendas. Vogt (2012) describes archival data as any data collected prior to the beginning of the research study. The survey, titled End of Year SIOP Model Review was distributed to all prekindergarten to grade 12 teachers by the English as an Additional Language department and is owned and

maintained by ACIS. The survey was comprised of eleven questions regarding the implementation of the SIOP Model for the 2018-2019 academic year. The survey provided both qualitative and quantitative data.

Analysis

The case study was designed to examine whether implementing the SIOP Model improves instructional practices that support ELLs. The researcher used archived data from ACIS's End of Year SIOP Model Review survey from 2019 and the 2017-2019 NWEA MAP reading test scores. The survey consisted of eleven questions that targeted the implementation of the SIOP model (EOY SIOP, Appendix A). The data were analyzed to evaluate the effectiveness of the implementation of the SIOP Model at ACIS in the first year. The data showed the number of teachers who were trained and are in compliance with the school's language acquisition training policy. They also showed the level of implementation readiness of teachers to confidently use SIOP strategies in their daily teaching practices. The reading MAP test scores were used to measure the effectiveness of the SIOP Model instructional strategies.

Survey data were taken from the archival data from the end of year survey. The researcher analyzed the frequency to see how the participants answered. The data were coded by themes and then summarized. Additionally, the researcher used NWEA MAP data to make comparisons of student achievement before and after the SIOP Model implementation. Other data sources such as PLC minutes, meeting notes and agendas were used to inform the findings.

Participants' Rights

Archival data from the spring 2019 administration of the ACIS teacher SIOP survey were used for this study. No identifiable information was collected by the researcher. ACIS owns the rights to the data and is responsible for maintaining and storing them. Data that is collected by

the researcher will be stored on a password protected computer file on the researcher's personal

computer for a period of no less than five years. At the end of this time, the file will be erased,

effectively destroying the data.

A disclaimer was added to the survey, which states the data will not be used to evaluate

the teaching practices of the teachers. However, the data will be used to analyze the

implementation of using the SIOP Model. The survey was distributed to the entire school

teaching staff; participation in the survey was completely voluntary. The survey was distributed

through the school's server, which automatically collects the email address of all participants.

Prior to starting the survey, participants were notified that this identifying data was being

collected. The data that was abstracted from the survey by the researcher did not include any

identifying markers. The data, as analyzed, were not tied to any specific teacher. A pseudonym

was used for the site location and participants were referred to by their role. The results of this

research are being used for a doctoral research at the University of New England. The study may

be submitted for further publication as a journal article or as a presentation.

Potential Limitations

There are three major potential limitations that may surface in this study. The sample

size, the data source, and the relationship of the researcher to the organization. The researcher

extracted the responses from the prekindergarten to grade 2 responses from the total data. The

sample was selected from the potential of 75 elementary level teachers. This sample size of 28

teachers may limit the scope of the implementation. The SIOP survey was distributed to ACIS

teachers and is owned and maintained by the ACIS. This limits the researcher's ability to frame

the survey and control the variables of the study. The data were collected a year ago as a part of

the end of year review. Due to the archival nature of the data, the researcher has no way to check

the accuracy of the teachers' responses. In this regard the data serve only as a snapshot of the whole story at this one point in time. The researcher did not develop this survey, so she has no control over the quality of the survey or the materials included in it. The researcher serves as an elementary level curriculum coordinator at ACIS. The responses of the participants may be influenced by their judgment of what the results of the survey may imply. This study is a single-site study, and the findings may not apply to other sites.

Conclusion

Schools are continuing to seek solutions that will support the content and language development in ELLs and ways to transition students into mainstream classrooms (Horn, 2011). This case study could be an effective approach in determing if implementing the SIOP Model improves instructional practices that support ELLs. This study examined the SIOP Model at an international school in Southeast Asia in its first year of implementation. In a single-site case study, the researcher used archival data from a teacher survey and NWEA MAP reading testing data from 2017-2019. The data that were analyzed are the survey results from the teachers in prekindergarten through second grade. The researcher also used meeting agendas and notes, PLC minutes and SIOP Model related professional development material to uncover themes and infom the study. The findings of this study could potentially inform the process of the SIOP Model implementation in all grade levels and possibly other schools.

CHAPTER 4: DATA ANALYSIS AND FINDINGS

The purpose of this qualitative case study was to examine the implementation of the SIOP Model at ACIS to support instructional delivery to ELLs and understand subject-specific content while at the same time developing language skills. In this study, archival data were used by analyzing survey responses, standardized test scores, and meeting minutes, notes and strategic planning documents. The sample group surveyed consisted of elementary teachers from prekindergarten through grade two and who participated in the implementation of the SIOP Model during the implementation period. Chapter 4 presents the findings of this research study and describes topics or themes that emerged from the analysis of data. The data and documentation were gathered in response to the following research questions.

1. What strategies, interventions, and/or protocols from the SIOP Model are being used by teachers?

2. What barriers and obstacles have teachers faced with implementing the SIOP Model?

3. What are the perspectives of teachers regarding support and training that would improve their use of the SIOP Model?

The first section addresses survey data, the second section addresses NWEA MAP scores, and the third section examines meeting notes, minutes and strategic planning documents. The first data source was a survey, which was administered to all the teachers in the school in June 2019. This survey consisted of eleven questions, multiple choice, yes/no and open response (see Appendix A). The second data source is the elementary level NWEA MAP 2017-2019 Reading scores, and the third data source is a combination of documentation including PLC agenda and meeting minutes, notes, and ACIS' 2017-2018 strategic plan.

The first source of data was an End of Year survey, which, according to sources, was given to a total of 438 teachers at ACIS and 55 of the surveys were returned for a return rate of 13%. Of the 55 respondents, 28 of them were from prekindergarten through grade 2, this indicates a 52% return rate from the prekindergarten through grade 2 teachers. The survey consisted of 11 questions, including specifying their grade level. There were multiple choice, yes/no and open-response questions.

Survey of All Teachers

The first source of data was an End of Year teacher survey. The survey, found in Appendix A, was administered in June of 2019. The results can be seen in the tables below.

Table 1- Teacher Respondants by Grade Level

Prekindergarten	Kindergarten 1	Kindergarten 2	Grade 1	Grade 2
4	3	5	6	10

Question 1 of the survey asked teachers to identify the grade level that they teach. Of the 28 respondents from prekindergarten through grade 2, four identified as prekindergarten, three identified as kindergarten 1, five identified as kindergarten 2, six identified as grade 1, and 10 identified as grade 2 (Table 1).

Question 2 of the survey asked teachers to identify their subject content area taught. This question was not relevant to the sample population of prekindergarten through grade 2 as these grade levels are self-contained and all subject areas are taught. There were no data used from this question and no table is provided.

Question 3 asked a yes or no question, about whether the respondent was a SEAL teacher or not. Some teachers are employed specifically as Sheltered English as an Additional Language

(SEAL) teachers. This population of teachers works exclusively with ELLs. Of the 28

respondents, 2 responded yes, indicating that they are classified as a SEAL teacher, 26 responded

no, indicating they are mainstream teachers (Table 2).

Table 2- Have you taken the SIOP training at ACIS?

Yes	No	Exempt
25	0	3

Question 4 asked if respondents had taken the SIOP training at ACIS, with possible

choices of yes, no or if they were exempt because they had taken an equivalent training. In

2017, it was mandated that all teachers, returning or incoming be trained in the SIOP Model or

have an exemption. Of the 28 respondents, 25 responded with "yes" with only, 0 responded

"no" and three indicated that they were exempt (Table 2). A teacher would qualify for an

exemption if they were able to provide evidence of taking SIOP training at another location

within the past three years.

Table 3- Was the training adequate?

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
0	1	5	19	3

Question 5 was a scaled question, 'strongly disagree' to 'strongly agree' asking if the

respondent thought the SIOP training they received was adequate. The adequacy of the training

is based on teachers' perception of the training, and applies to training received at ACIS or the

exemption training. There were zero respondents who 'strongly disagreed' with the adequacy of

their training (Table 3). Of the 28 respondents, one disagreed with the adequacy, five had a

neutral response, while 19 agreed and three strongly agreed with the adequacy of the SIOP

training received. There were no opportunities for teachers to provide additional comments to

this response.

Table 4-Which area(s) of the SIOP Model lesson preparation was most successful? (select all that apply)

	Content Objectives Clearly Defined	Language Objectives Clearly Defined	Content Concepts Appropriate	Supplementary Materials	Adaptation of Content	Meaningful Activities
Occurances	19	20	12	8	11	16
%	67.9	71.4	42.9	28.6	39.3	57.1

Question 6 asked the respondents to select which areas of the SIOP Model lesson

preparation did they find to be most successful, multiple responses were accepted by each

responder. Of the 28 respondents, 19 indicated that 'Content Objectives Clearly Defined,

Displayed and Reviewed with Students' was most successful (Table 4). Twenty out of the 28

respondents indicated that 'Language Objectives Clearly Defined, Displayed and Reviewed with

Students' was most successful. Twelve of the 28 respondents indicated that 'Content Concepts

Appropriate for Age and Educational Background Level of Students' was most successful. Eight

of the 28 respondents indicated that 'Supplementary Materials Used to a High Degree, Making

the Lesson Clear and Meaningful' was most successful. Eleven of the 28 respondents expressed

that 'Adaptation of Content to All Levels of Student Proficiency' was most successful and 16 of

the 28 indicated that 'Meaningful Activities that Integrate Lesson Concepts with Language

Practice Opportunities for Reading, Writing, Listening and/or Speaking' was most successful.

Table 5- Which area(s) of the SIOP Model lesson preparation was least successful?

	Content Objectives Clearly Defined	Language Objectives Clearly Defined	Content Concepts Appropriate	Supplementary Materials	Adaptation of Content	Meaningful Activities
Occurances	9	2	7	4	7	7
%	32.1	7.1	25	14.3	25	25

Question 7 asked the respondents to select which areas of the SIOP Model lesson preparation did they find to be the least successful, multiple responses were accepted by each responder. Of the 28 respondents, nine indicated that 'Content Objectives Clearly Defined, Displayed and Reviewed with Students' was least successful (Table 5). Two out of the 28 respondents indicated that 'Language Objectives Clearly Defined, Displayed and Reviewed with Students' was least successful. Seven of the 28 respondents indicated that 'Content Concepts Appropriate for Age and Educational Background Level of Students' was least successful. Four of the 28 respondents indicated that 'Supplementary Materials Used to a High Degree, Making the Lesson Clear and Meaningful' was least successful. While seven of the 28 respondents expressed that 'Adaptation of Content to All Levels of Student Proficiency' was most successful. And seven of the 28 indicated that 'Meaningful Activities that Integrate Lesson Concepts with Language Practice Opportunities for Reading, Writing, Listening and/or Speaking' was least successful.

Table 6- How do you incorporate the SIOP Model into your planning?

Content and Language Objectives	Use Visual Cues	Scaffolding Strategies	Suggested SIOP Activities	Display Vocabulary	Use all components	Do not use
9	5	2	3	2	5	2

Question 8 asked respondents to specify ways that they incorporate the SIOP Model in their planning. The responses varied and were grouped by themes that occurred within the responses. Of the 28 respondents, nine stated that they incorporated the use of content and language objectives (Table 6). While five indicated that they incorporate visual cues in their planning, two of the respondents stated that they use scaffolding strategies. Three of the respondents asserted that they incorporate some of the suggested SIOP activities. Two of the teachers stated that they incorporate the SIOP Model by displaying vocabulary. Of the 28 respondents five reported incorporating all areas of the SIOP Model in their planning, and two stated that they do not incorporate any components of the SIOP Model in their planning.

Table 7- What barriers or obstacles did you face implementing the SIOP Model?

No Barriers	Lack of Planning Time	Posting Language Objectives	Not relevant to lower elementary	Teaches too many different levels of students	Time of the Training
11	5	4	2	4	2

Question 9 was an open-response question that asked the respondents to identify barriers or obstacles they face in implementing the SIOP Model. The responses were open-ended and therefore clustered for analysis. Of the 28 teachers, 11 reported there were no barriers or obstacles hindering the implementation of the SIOP Model (Table 7). Five of the respondents

stated that lack of planning time was a barrier. Four of the respondents indicated the task of posting language objectives was an obstacle. Two of teachers reported that the SIOP Model was not relevant to lower elementary students, indicating the entire model is a barrier. Four teachers stated that teaching too many students at different levels is a barrier in implementing the SIOP Model. Two of the respondents reported that the time of the training was an obstacle, specifically noting the different time zones of the training and not being able to participate in live trainings.

Question 10 asked a yes or no question, about whether the respondent had a copy of the *Making Content Comprehensible for English Language Learners: The SIOP Model* book. Teachers who received SIOP Model Training at ACIS were allocated a book and were to receive it prior to the online training. Of the 28 respondents, 16 responded with 'yes' they have the book while 12 responded 'no' they did not have the book (Table 9).

Table 8- Is there an area covered in the SIOP Model that you would like further training in? (choose all that apply)

Lesson Preperation	Comprehensible Input	Strategies	Interaction	Practice and Application	Lesson Delivery	Assessment	RTI
6	3	13	1	4	4	7	12

Table 9- Number of areas Selected for Further Training

Selections	1	2	3	4	5	6
Teachers	18	4	3	1	1	1

Question 11 asked respondents to identify areas in the SIOP Model that they would like further training. Respondents were given a choice of eight areas to select from and were able to

select as many areas that applied to them. It is noted that the first seven areas to choose from are from the eight components of the SIOP Model, the last area, Response to Intervention (RTI), is not a component of the SIOP Model, but an instructional model supported by SIOP, designed to address at-risk students early by providing learning support (Echevarría & Vogt, 2011). Of the 28 respondents, six indicated they would like further training in 'lesson preparation'. Three out of the 28 teachers would like further training in 'comprehensible input' (Table 8). Thirteen of the 28 respondents indicated that they would like more training in 'strategies'. Only one of the 28 respondents indicated that they would like further training in 'interaction'. Four respondents indicated that they would like further training in 'practice and application' and four would like further training on lesson delivery. Seven of the teachers reported that they would like further training on 'assessment', while 12 would like further training on 'RTI'. While 22 teachers selected only one area for further training, four selected between three and four areas, and two teachers selected five to six areas (Table 9).

NWEA MAP Results

The second source of data is ACIS' grade 1 and 2, Northwest Evaluation Association (NWEA) Measures of Academic Progress (MAP) Reading test scores for Spring 2018 and Spring 2019. The NWEA MAP K-2 Reading assessment, assesses the following areas; phonological awareness, phonics, concepts of print, word structure and meaning, comprehension and writing. The data contain the average score for each grade level indicated for the Spring 2018 and Spring 2019 results. NWEA (2015) published normative chart scores are presented for comparison. The NWEA MAP normative score is the mean scores, based on the bell curve, set for each grade level at three points in the year. According to NWEA (2015) these normative scores were developed to allow educators to compare student achievement and measure growth

of students' in the same grade at comparable points in the school year or across multiple test events within or across school years. The NWEA MAP test is not taken in pre-kindergarten through kindergarten 2, therefore no data is available for this group.

Table 10- NWEA MAP Reading Results 2018-2019

	NWEA Reading MAP EOY Student Status Norm	ACIS MAP Reading Spring 2018	ACIS MAP Reading Spring 2019
Grade 1	177.5	169.4	183.9
Grade 2	188.7	188.2	200.4

The grade 1 NWEA MAP Reading results for Spring 2018 showed the average score was 169.4 which was below the NWEA Reading MAP End of Year (EOY) student status norm of 177.5 (Table 10). The grade 1 NWEA MAP Reading results for Spring 2019 average score was 183.9, this demonstrate a growth of 14.5 from the Spring 2018 results and is above the 177.5 student status norm. The grade 2 NWEA MAP Reading results for Spring 2018 showed the average score was 188.2 which was .5 below the NWEA Reading MAP End of Year (EOY) student status norm of 188.7. The grade 2 NWEA MAP Reading results for Spring 2019 average score was 200.4, this demonstrates a growth of 12.2 from the Spring 2018 results and is above the 188.7 student status norm.

The NWEA MAP published normative score for grade 1 at the end of the year is 177.5. According to the Spring 2018 results, the average grade 1 at ACIS scored below the NWEA MAP normative score. The grade 1 Spring 2019 results show a 14.5 increase, averaging above the normative score. The grade 2 scores had similar results. The published normative score for grade 2 is 188.7, the Spring 2018 reports the grade 2 results just below the normative score at

188.2. However, in the Spring 2019, the grade 2 average increased by 12.2 points, averaging above the NWEA MAP normative score.

The NWEA MAP reading test is standardized assessment administered each year to measure student progress in grades 1 through 12. The results of the 2018 and 2019 NWEA MAP reading results in grades 1 and 2 were used in this study to compare student progress after the first year of the implementation of the SIOP Model. The MAP test is not administered to Pre-kindergarten through kindergarten 2. Progress in those grades are measured by observations and against developmental standards.

PLC Minutes, Notes, and Agendas

The third source of data is the Professional Learning Communities (PLC) minutes, notes and agendas from August 2018-March 2019. According to Dufour and Fullan (2012), a PLC is a group of educators who have regular meetings, share practices, data and student work, working collaboratively to improve teaching practices and student academic performance. These anecdotal data contain information regarding the date, subject matter, and roles of the attendees during each PLC meeting held at ACIS during the 2018-2019 academic year. The minutes and notes serve as record of items discussed, next steps planned and evidence of teaching and learning.

Table 11- PLC Meeting Record

Date	September 2018	October 2018	November 2018	January 2019	February 2019	March 2019
Topic	Assessment	Language and Literacy	Integrating Content	Strategies	Evidence of Learning	Assessment
Participants	54 Teachers	54 Teachers	50 Teachers	54 Teachers	53 Teachers	42 Teachers
	Principal	Principal	Principal	Principal	Principal	Principal
	Curriculum Coordinator	Curriculum Coordinator	Curriculum Coordinator	Curriculum Coordinator	Curriculum Coordinator	Curriculum Coordinator
	Head of SEAL	Head of SEAL	Head of SEAL	Head of SEAL	Head of SEAL	Head of SEAL

There were six elementary PLC meetings at ACIS during the 2018-2019 academic year. The meeting was held on a monthly basis and all homeroom teachers, the principal, the curriculum coordinator and the Head of SEAL were expected to participate. During each meeting there is a notetaker and minutes keeper. At the end of each meeting teachers have opportunities to provide feedback and ask questions.

The PLC meeting held in September 2018 was about Assessments, in attendance were 54 teachers, the elementary principal, the elementary curriculum coordinator, and the Head of Sheltered English as an Additional Language (SEAL) (Table 11). The first set of tasks set before the group was to review their classes' Spring 2018 NWEA Map Reading Data, identify areas of concern, have a discussion and create a draft of an action plan for their students. The second task was for the teachers to review the current phonics assessment and revise where necessary. The next steps recorded was for teachers to administer the revised phonics assessment and record the data in their literacy data folders. The reflections and responses captured from teachers were

"Assessment takes a long time to complete one-on-one", "not sure if it helps with MAP results", and "now I have a clearer picture of what to do."

The October 2018 PLC meeting focused on 'language and literacy', the participants included 54 teachers, the elementary principal, the elementary curriculum coordinator, and the head of SEAL. During this meeting grade level teams discussed and reviewed literacy unit plans and shared student work samples. They were asked to reflect on a literacy Professional Development that had occurred previously about balanced literacy. The teachers were also asked to reflect on the following questions. Are your units balanced? If not, what's missing? As a grade level, they were tasked with selecting an upcoming unit and amending it so that it reflects the balanced literacy approach, it did not have to include every component. The next step was for each teacher to allot 15 minutes per day to try shared reading. Some of the teacher feedback recorded was "I didn't realize there were all of these components to literacy", "I thought we could only use reader's and writer's workshop", "there is not enough time to do all components during our literacy blocks", and "we need more PD on balanced literacy."

In November 2018, the PLC meeting topic was about integrating content, the participants included 50 teachers, the elementary principal, the curriculum coordinator and the head of SEAL. The Head of Sheltered English as an Additional Language presented the SEAL program to give everyone a better understanding of the program and its effectiveness with SEAL students at each K - 5 grade level. A Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis of the SEAL program. Teachers identified strengths and weaknesses of the program and were then able to write ideas, comments and questions about opportunities and threats of different proposed integration models. The next steps were for the team to determine how SEAL instruction would be integrated in units of study. The proposed models were: 1) Reducing

language instructional time; 2) Quarter 2 all SEAL classes teach language only instead of the second unit of study; 3) Integrate portions of the mainstream unit of study; 4) Intentional language instruction embedded in the mainstream unit of study. Some of the feedback captured from teachers was, "we already integrate a lot of content", "it builds CALP", " I wonder if this helps with absolute beginners", and "this gives more opportunities for vertical alignment and collaboration."

The January 2019, PLC meeting subject point was strategies and activities, 54 teachers were in attendance along with the elementary principal, curriculum coordinator and the head of SEAL. A grade 2 teacher presented ways to use Seesaw to assign activities, align standards, and track data. During the meeting teachers and teaching assistants practiced using Seesaw, they were tasked with adding one assignment to their class. The next steps was for all teachers to create classes on Seesaw, add folders and assign and share activities. Some of the documented comments from teachers were "this makes it easier", "everyone is not so great with technology", "I didn't know that Seesaw had all of these capabilities", "this is great for differentiation", and "this relies too much on technology."

The February 2019 PLC meeting focused on Collecting and Responding to Evidence, where 53 teachers participated as well as the elementary principal, the curriculum coordinator and the head of SEAL. Teachers read and discussed the article *20 Ways to Provide Effective Feedback For Learning* (http://www.facebook.com/teachthought, 2019). They were asked to add feedback to student work on Seesaw. They then conducted peer reviews and gave their colleague's feedback. The next steps were for teachers to bring evidence of learning (not from Seesaw) to upcoming weekly grade level meetings, including writing samples and other formative assessments. They were also encouraged to read *How to Give Effective Feedback*

(Brookhart, 2017). Some teachers' feedback was "I am wondering how to support students in doing peer feedback", "the feedback we give should help students move forward", and "we need more in-depth PD on giving constructive feedback".

The last PLC meeting of the academic year was held in March 2019. The group of educators revisited the topic of assessment, 42 teachers were present as well as the elementary principal, the curriculum coordinator and the head of SEAL. Fewer teachers attended the last meeting as there were other meetings that conflicted with the schedule. The teachers were tasked with comparing the assessment data from the NWEA MAP reading results and, Fountas and Pinnell (F&P) reading assessment (Fountas & Gay Su Pinnell, 2008). They had to identify discrepancies in the student assessments, for example a high F&P reading level and low MAP reading result. The next steps were to reassess students who had major discrepancies and prepare report cards. There were no teacher responses recorded.

According to the PLC notes and agendas, there was a high participation rate, with over 90-100 percent attendance at five of the six meetings. The last PLC meeting in March 2019 had the lowest attendance rate, 12 teachers were absent due to schedule conflicts with other professional development workshops. The PLC meetings covered broad areas of the topics listed, covering 'assessment' both at the first and last meeting. The PLC focus was on school wide curriculum initiatives, however the SIOP Model and ELLs were subtopics at each meeting. All the meetings were guided by Dufour, Dufour and Eaker's (2005) four PLC essential questions: 1) What do we expect our students to learn? 2) How will we know they are learning? 3) How will we respond when they don't learn? How will we respond if they already know it?

ACIS Strategic Plan

The strategic plan, drafted in June 2017, outlines goals, actions, and next steps over a three-year period. The strategic goal, related to addressing the needs of ELLS, is to identify, develop and support a culturally. The actions identified to accomplish Goal 1 were listed as identify, support and share teaching practices that are culturally and linguistically responsive so that we collectively see our cultural and linguistic diversity as a strength. The expectation is that professional development will be designed to purposefully build and deepen understanding around culturally and linguistically responsive practices within the staff and community. The proposed professional development is Culturally and linguistically responsive teaching (PD sessions during orientation), SIOP Level 1 (online-ongoing), SIOP Level 2 trainers from CAL and Train the trainers for EAL teachers that qualify. The key performance indicators listed are, a) completion of PD sessions; b) Evident use of SIOP components and strategies for language learners in all classrooms; c) SIOP PD sessions being organized and delivered by trained EAL teachers; d) increase in resources; e) feedback/surveys to include culturally and linguistically focused questions (VOS/VOE/VOP); and f) development of a protocol/tool highlighting cultural behavioural difference and determining how it's going to be used. The evidence needed to be gathered is a) an increase in enrolment for SIOP courses; b) completion certificates turned in to curriculum department (on going); c) thorough observations (on going); d) feedback from session attendants (after each session); e) librarians designate and label an area (by the end of the year/ bar code and track usage); and f) data collection/analysis from surveys (by the end of the year).

Conclusion

Chapter 4 presented the study findings and an evaluation of data gathered from 28 prekindergarten through grade 2 teachers who implemented the SIOP model after engaging in SIOP Model training. The participants shared various perspectives regarding implementing the SIOP model, its effectiveness, and the barriers encountered. They agreed that the SIOP model has some components that are more successful than others.

While all participants have been trained in the SIOP model, not all of them possess the *Making Content Comprehensible for English Language Learners: The SIOP® Model* book which complements the online training, 43 percent of the teachers do not have a copy. Teachers were asked to specify the barriers they faced implementing the SIOP Model. Nearly 40 percent of the teachers stated that there were no barriers, while the others perceived planning time, relevancy and having multiple levels of students as barriers. Language and content objectives emerged as the most incorporated areas in lesson planning. All except two teachers reported that they incorporate some of the SIOP Model into their planning, five reported that they incorporate all of the areas.

There is no indication that teachers were given a directive on which components of the SIOP Model to implement, based on the questions of the survey, the Lesson Preparedness' component was the only area that was specified. More teachers indicated that they wanted more training in using strategies and response to intervention.

In conclusion, the SIOP Model in its first year of implementation was successful in having all teachers trained. Most teachers found at least some components of the SIOP Model to be successful and have begun incorporating different areas into their planning. According to the NWEA MAP results, there has been improvement in the overall reading scores in grades 1 and 2.

ACIS has shown commitment to their strategic plan goals, by initiating action, and having

focused PLCs to support their goals.

CHAPTER 5: INTERPRETATIONS AND CONCLUSIONS

This chapter provides the results and conclusion of the study. It contains discussion on the data presented in Chapter 4 and includes findings, discussion of the findings, limitations of the study, and recommendations for action and future research.

The purpose of this qualitative case study was to examine the implementation of the SIOP Model at ACIS in order to support instructional delivery to ELLs transitioning to mainstream classrooms. In 2017, ACIS set two of their strategic goals to address the issue. The first goal was to *identify, develop and support a culturally and linguistically responsive mindset.* The second goal was to *drive a deeper understanding of student learning to maximize growth.*

This study is significant as it could potentially improve the delivery of instructional strategies to ELLs using the SIOP Model. This study examined how the SIOP Model was implemented, what challenges teachers faced using the model and future trainings that can support the use of the SIOP Model. The findings of this research may inform many stakeholders, namely other grade levels at ACIS, the school's administration team, and other international schools with similar demographics.

According to ACIS' 2017 strategic plan, all teachers, returning and new, would be required to take the Level 1 SIOP Model training or show evidence of receiving an equivalent training by the end of the 2017-2018 academic year. The expectation was that teachers would begin to implement the SIOP Model once they had participated in the 4-week online course. Upon the completion of a full year of implementation, in June 2019, all teachers received a voluntary, End of Year SIOP Model Survey (Appendix A). The archival data from this survey allowed the researcher to evaluate the teachers' perspectives based on their responses. Fifty-five teachers responded to the survey, and this research only examined the responses of the 28

teachers from prekindergarten through grade 2 that responded. The researcher also analyzed

archival data from 2018-2019 NWEA MAP results, PLC agendas, minutes and notes, as well as

the strategic plan document to further inform the study.

This study was guided by the following three research questions:

1. What strategies, interventions, and/or protocols from the SIOP Model are being used

by teachers?

2. What barriers and obstacles have teachers faced with implementing the SIOP Model?

3. What are the perspectives of teachers regarding support and training that would

improve their use of the SIOP Model?

Discussion and Conclusions

The contents of this section are based on the findings from the three research questions

used in this study. Implications from each research question are discussed and reviewed

separately.

Research Question 1

The results of the study discussed in this subsection were analyzed to answer the research

question, "What strategies, interventions, and/or protocols from the SIOP Model are being used

by teachers?"

The first question addresses the use of strategies, interventions and protocols from the

SIOP Model. As shown through the end of year survey, teachers are using different components

of the SIOP Model. More teachers are incorporating the language and content objectives in their

planning. However, there is also evidence of teachers using visual cues, displaying vocabulary,

scaffolding lessons and using SIOP suggested activities. Most of the teachers have incorporated

some form of the SIOP Model in their planning and lesson delivery, with only two teachers reported not incorporating any aspect of the model.

Implications

There SIOP Model is composed of 30 features that are grouped into eight components (Echaverria et al., 2008). When teachers are self-selecting aspects to incorporate into their planning the usage rate is inconsistent. The survey emphasized the successfulness of the Lesson Preparation features. This covers only six of the 30 features, using content and language objectives, using supplementary materials, utilizing appropriate content concepts, creating meaningful activities and adapting the content for all learners (Echaverria et al., 2008). Through an open-ended question, teachers were able to indicate other features and components that they use such as scaffolding and using visual cues. The evidence indicates that the SIOP Model was being used. The increase of the NWEA MAP scores for both grade 1 and 2 also suggests that using the SIOP Model is having a positive impact on student learning. The NWEA MAP test is only given to students in mainstream classrooms, therefore the increase in the average reading scores indicates favorable results for the ELLs in mainstream settings. A key performance indicator for the strategic goals was to show evidence of use of SIOP components and strategies for language learners in all classrooms. Of the 28 participants, all have reported using he SIOP Model in some form, but two teachers conveyed they do not incorporate in their planning.

Research Question 2

The results of the study discussed in this subsection were analyzed in an attempt to answer the research question, "What barriers and obstacles have teachers faced with implementing the SIOP Model?"

The second question addresses the barriers and challenges that teachers faced implementing the SIOP Model. Of the 28 respondents, 39 percent reported that they faced no barriers in implementing the SIOP Model. The barrier specified most was lack of planning time which is very similar to Miner's (2006) findings, which showed system-wide barriers such as lack of time to plan, prepare and adapt lessons. One teacher stated "there is never enough time to implement as much as I would like. Several teachers pointed out that there are too many ELL levels in their classes, making it difficult to adapt and plan to meet individual needs. Although posting language and content objectives emerged as one of the most successful aspects of the SIOP Model, four teachers found that posting them was a challenge, citing time and remembering to post them as the problem. Two teachers reported the online training itself posed a challenge as the teachers at ACIS are all located in Southeast Asia and the live online sessions take place in the United States. They found themselves always having to listen and "catch up" and not being able to interact with the online learning groups.

Implications

Echaverria et al (2008) states that it could take teachers at least a year to become effective in using the SIOP Model. However, they note that the quality of the school's SIOP Model professional development and implementation plan has a significant impact on a teacher's usage and understanding of the model. There was no evidence of a implementation plan other than to have all teachers, returning and in coming, to participate in the Level 1 SIOP Model 4-week online training. This suggests that the teachers may be unaware of how to fully implement the SIOP Model and to what degree it should be implemented. There were many teachers who reported that there were no challenges in implementing the model, this could be due to lack of understanding and expectations of implementing the model fully.

Research Question 3

The results of the study discussed in this subsection were analyzed to answer the research question, "What are the perspectives of teachers regarding support and training that would improve their use of the SIOP Model?"

The final research question examines the teachers' perspectives on what support and training they feel would improve their use of the SIOP Model. There were eight possible areas to select from and the teachers were permitted to select as many areas that felt applied. The first seven areas to choose from are from the eight components of the SIOP Model (Appendix B), the last area, Response to Intervention (RTI), is not a component of the SIOP Model, but an instructional model supported by SIOP, designed to address at-risk students early by providing learning support (Echevarría & Vogt, 2011). The two areas that teachers felt they needed further training in the most was strategies and RTI. Lesson preparation and assessment were two other areas that emerged as needing further training and support.

Implications

All of the participating teachers engaged in SIOP model training, 26 of the 28 teachers took the Level 1 online training while at ACIS. The other two teachers were exempt by showing evidence of a similar training. A copy of the *Making Content Comprehensible for English Language Learners: The SIOP® Model* was promised to everyone who took the training at through ACIS and extra copies were ordered for the professional development library. This information conflicts with the survey results that 12 of the 28 participants did not have a copy of the book. Teachers were only able to select areas of training that was provided as survey responses, there may be other areas that teachers feel they need further training and support in. Additionally, time came up as a factor for challenges, although teachers did not idicate this as an

area for further support and training, it is evident that in order to implement the SIOP Model, time management should be addressed.

Limitations and Considerations

The findings from the three research questions suggest some emerging patterns. All of the participating teachers had been trained in the SIOP Model and reported some level of success. The mixture of results indicate that teachers are implementing the SIOP Model based on their individual understanding and not based on a formal implementation plan. The only directive given from the school was to participate in the Level 1 SIOP online training. This limits the study a great deal, as nothing was set in place to measure accountability or the fidelity of the model.

The survey questions limited the scope of the study, as the researcher did not create the survey or set the context for the study. The questions were broad and did not cover the full range of the SIOP Model. Two questions were very specific to one of the components, Lesson Preparedness, while some of the questions referred to all of the components. Another limitation to the study was the return rate of the survey. The survey was distributed all of the teachers school wide, but only 55 teachers responded. Of the 55 respondents, 28 of them were from prekindergarten through grade 2. There is a total of 54 teachers that represent prekindergarten through grade 2, this indicates a 52% return rate from the prekindergarten through grade 2 teachers. Having more respondents could have altered the findings.

The study examined the first year of implementation and used test score data from the year prior to the implementation and the implementation year, it would have been useful to have access to prior test scores to further examine the need for implementation. Additionally, the test

scores were not segregated, so assumptions were made that if the NWEA MAP scores increased as a whole grade level, then there was an increase in the ELLs scores.

Lastly, the study was limited to the use of archival data. The researcher only had access to data sources that had already been created. This limited the scope of the research and the flexibility of sources. The researcher did not conduct any interviews or collect any evidence of teaching and learning as it related to implementing the SIOP Model. Additionally, because the researcher did not develop the survey that was used it limited the ability to describe and explore different variables.

Recommendations for Future Practice

The first recommendation is for ACIS to continue the full implementation of the SIOP Model. It is difficult to fully implement the SIOP model in one year. The results of the first year of implementation are promising. Teachers found success in the SIOP Model and began incorporating different areas without directives. The school should continue to support and make the commitment to implementing the SIOP Model. This should include ensuring that all teachers have the required resources and books to be successful. The strategic plan of action includes training teachers to be SIOP trainers, it is recommended that ACIS move forward with this plan. The school has a large population of both students and teachers, it would be beneficial to have in house experts to provide ongoing support.

The second recommendation is for the administration to develop a complete plan of action for full implementation. Based on the results of this study, it is recommended that the plan of action include ongoing professional development, accountability of teaching and learning, and assessment tools to measure student achievement and teaching practices. The ongoing professional development should be aligned with the assessment tools, therefore,

addressing the needs of the students and teachers being impacted. The professional support should be expanded to continue to develop the skills of all teachers, even those who have already been trained. It is worth noting that the need for additional training was reported in both the survey and captured teacher responses in the PLC.

In order for teachers to be accountable, clear expectations should be set regarding the implementation. This should include observations and evidence of teaching and learning. An assessment tool, to measure teaching practices regarding the SIOP Model and ELL instruction, should be designed and utilized. The NWEA MAP standardized test is only one source of data, multiple sources of assessment should be used and considered to measure the implementation.

Recommendations for Further Study

During the course of this research, several extensions for further study emerged. It would be beneficial for ACIS to follow up with subsequent surveys and examine the data. Recommendations for further research are as follows:

1. This study only examined the implementation of the SIOP Model in pre-kindergarten through grade 2. It would be beneficial to also consider the implementation in the upper grades, as well as look at the NWEA MAP results for comparisons. ACIS goes up to grade 12, research could explore smaller divisions or the entire school. Further curriculum planning can take the expansion into account.

2. The current study only used archival data from various sources. It is recommended that further research be conducted that includes interviews, observations and follow up so that a more in depth research can take place. The data sources limited the scope of the research, further examination of all of the components of the SIOP Model is recommended.

3. The SIOP Model was designed to meet the needs of ELLs, however, many of the strategies and interventions could potentially support other learners. It is recommended to conduct further research on the use of the SIOP strategies and interventions with all students, regardless of first language.

Conclusion

Due to the growing population of English language learners, many schools will continue to be faced with the challenge of meeting their language acquisition needs. Markos and Himmel (2016) suggest that, to provide quality sheltered instruction, teachers must know how to teach ELLs effectively in addition to teaching their content area. According to Echevarria et al (2012), implementing the SIOP Model schoolwide does not happen in a year, it requires ongoing support and professional development. ACIS showed favorable results in its first year of implementation. Other studies suggest that effectively implementing the SIOP Model has a positive impact on the success of ELLs.

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Appendix A

2019 End of Year SIOP Survey

1. Grade Level

2. Subject Area (Gr. 6-12 ONLY)

3. Are you a SEAL teacher?
   a. Yes
   b. No

4. Have you taken the SIOP training at SAIS?
   a. Yes
   b. No, I have not taken the training
   c. No, I was exempt because I have evidence of an equivalent training.

5. Was the training adequate?
   a. Strongly disagree
   b. Disagree
   c. Neutral
   d. Agree
   e. Strongly Agree

6. Which area(s) of the SIOP Model lesson preparation was most successful? (choose all that apply)
   a. Content Objectives Clearly Defined, Displayed and Reviewed with Students
   b. Language Objectives Clearly Defined, Displayed and Reviewed with Students
   c. Content Concepts Appropriate for Age and Educational Background Level of Students
   d. Supplementary Materials Used to a High Degree, Making the Lesson Clear and Meaningful
   e. Adaptation of Content to All Levels of Student Proficiency
   f. Meaningful Activities that Integrate Lesson Concepts with Language Practice Opportunities for Reading, Writing, Listening and/or Speaking

7. Which area(s) of the SIOP Model lesson preparation was least successful? (choose all that apply)
   a. Content Objectives Clearly Defined, Displayed and Reviewed with Students

   b. Language Objectives Clearly Defined, Displayed and Reviewed with Students
   c. Content Concepts Appropriate for Age and Educational Background Level of
       Students
   d. Supplementary Materials Used to a High Degree, Making the Lesson Clear and
       Meaningful
   e. Adaptation of Content to All Levels of Student Proficiency
   f. Meaningful Activities that Integrate Lesson Concepts with Language Practice
       Opportunities for Reading, Writing, Listening and/or Speaking

8. How do you incorporate the SIOP Model into your planning?

9. What barriers or obstacles did you face implementing the SIOP Model?

10. Do you have a copy of Making Content Comprehensible for English Language Learners: The
    SIOP® Model?
    a. Yes
    b. No

11. Is there an area covered in the SIOP Model that you would like further training in?
    a. Lesson Preparation
    b. Comprehensible Input
    c. Strategies
    d. Interaction
    e. Practice and Application
    f. Lesson Delivery
    g. Assessment
    h. RTI

Appendix B

The 8 Components and 30 Features of the SIOP Model

SIOP Model Components	SIOP Model Features
Lesson Preparation	1. Content objectives clearly defined, displayed and reviewed with students 2. Language objectives clearly defined, displayed and reviewed with students 3. Content concepts appropriate for age and educational background level of students 4. Supplementary materials used to a high degree, making the lesson clear and meaningful (e.g. computer programs, graphs, models, visuals) 5. Adaptation of content (e.g. text, assignment) to all levels of student proficiency 6. Meaningful activities that integrate lesson concepts (e.g. surveys, letter writing, simulations, constructing models) with language practice opportunities for reading, writing, listening and/or speaking
Building Background	7. Concepts explicitly linked to students' background experiences 8. Links explicitly made between past learning and new concepts 9. Key vocabulary emphasized (e.g. introduced, written, repeated and highlighted for students to see)
Comprehensible Input	10. Speech appropriate for students' proficiency level 11. Clear explanation of academic tasks 12. A variety of techniques used to make content concepts clear
Strategies	13. Ample opportunities for students to use learning strategies 14. Scaffolding techniques consistently used assisting and supporting student understanding 15. A variety of questions that promote higher-order thinking skills (e.g. literal, analytical, and interpretive questions)
Interaction	16. Frequent opportunities for interaction and discussion between teacher/student and among students, which encourage elaborated responses about lesson concepts 17. Grouping configurations support content and language objectives of the lesson 18. Sufficient wait time for student responses consistently provided 19. Ample opportunities for students to clarify key concepts in L1 as needed with aide, peer, or L1 text

Practice and Application	20. Hands-on materials and/or manipulatives provided for students to practice using new content knowledge 21. Activities provided for students to apply content and language knowledge in the classroom 22. Activities integrate all language skills (i.e. reading, writing, listening and speaking)
Lesson Delivery	23. Content objectives clearly supported by lesson delivery 24. Language objectives clearly supported by lesson delivery 25. Students engaged approximately 90% to 100% of the period 26. Pacing of the lesson appropriate to students ability level
Review and Assessment	27. Comprehensive review of key vocabulary 28. Comprehensive review of key content concepts 29. Regular feedback provided to students on their output 30. Assessment of student comprehension and learning of all lesson objectives (e.g. spot checking, group response) throughout the lesson

Note. Adapted from Making Content Comprehensible for English Language Learners,

Echevarria et al., 2012