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A Research Review of the SIOP Model: Its Definition, Factors Affecting its Success, and Challenges Faced by Educators

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Abstract

The increase in English Language Learners (ELLs) across the United States calls for strategies such as the Sheltered Instruction Observation Protocol (SIOP model) to be used to allow for these students' success. There is an exceptionally high prevalence of ELLs in the Rochester area. One of the strategies that has proven successful to help English Language Learners understand and retain content is the use of the SIOP method. This 30 feature method is not being utilized in all schools nor by all teachers. A study was completed at The Beth Johnson School and The Juan Lopez school in the Rochester, NY area to see if the SIOP model was being used to aide students and if not, why it was not being used. Surveys indicated that most teachers at both schools were not aware of the model nor its benefits. However, most of the teachers at both The Beth Johnson School and The Juan Lopez School were already implementing components of the model in their classrooms.

A Research Review of the SIOP Model: Its Definition, Factors Affecting its Success, and

Challenges Faced by Educators

By

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Abstract

The increase in English Language Learners (ELLs) across the United States calls for strategies such as the Sheltered Instruction Observation Protocol (SIOP model) to be used to allow for these students' success. There is an exceptionally high prevalence of ELLs in the Rochester area. One of the strategies that has proven successful to help English Language Learners understand and retain content is the use of the SIOP method. This 30 feature method is not being utilized in all schools nor by all teachers. A study was completed at The Beth Johnson School and The Juan Lopez school in the Rochester, NY area to see if the SIOP model was being used to aide students and if not, why it was not being used. Surveys indicated that most teachers at both schools were not aware of the model nor its benefits. However, most of the teachers at both The Beth Johnson School and The Juan Lopez School were already implementing components of the model in their classrooms.

English Language Learners (ELLs) have a harder time in the classroom due to many factors. Learning content in a classroom is extremely difficult when you do not speak the language. There are strategies that can significantly help ELLs acquire content knowledge and increase understanding. One of these strategies is the Sheltered Instruction Observation Protocol (SIOP model), which contains 30 features that help ensure student success. This model, although proven effective, is not well known or widely used.

In my research study, I chose to go straight to the teachers to determine if the method is being taught in their classrooms. I sent out surveys electronically in order for teachers to anonymously answer. I wanted teachers to speak freely and give accurate information, not respond how they thought I wanted them to answer. I asked questions in the survey that focused on building the students' background in order for the pupils to better comprehend the content. This background building includes making connections to what the students already know, such as previously taught content, and their own life situations. By teaching this critical part of the SIOP model in their classroom teachers can increase the rate of student success. I broke down the part of the model and asked if they currently use any of these parts in their classroom. I also inquired if they were using all parts of the SIOP model and if not, why not. I wanted to know this in order to identify the barriers faced when trying to increase student achievement. I also sought proof that teachers were perhaps not utilizing this method in order to discuss the great need and benefits of the model with administration.

Literature Review

The number of English Language Learners is increasing across the United States and especially here in Rochester. According to Calderon & Zamora (2014), the term English Language Learner (ELL) refers to students who are in the process of acquiring English because

they have another language as their native and primary method of communication (Calderon et al., 2014). This paper will provide a detailed explanation of the Sheltered Instruction Observation Protocol (model, explaining what it is in general, detailing the many features of the model, and explaining the point rating system. It will document the research done on the SIOP Model, listing the various factors that affect its successful implementation. Finally, it will describe the many challenges faced by teachers and schools as they try to implement the SIOP model.

According to Kim, Walker & Manarino-Leggett (2012), the number of students who speak languages other than English increased from 23.1 million to 55.4 million between 1980 and 2007. Their research also indicates that many of today's classroom teachers are under-prepared to teach ELLs. Although No Child Left Behind called for highly qualified teachers in every core academic classroom, there is a significant shortage of teachers who are truly qualified to teach ELL students (Kim et al., 2006).

According to Cervetti, Kulikowich, & Bravo (2015), many ELLs do not often perform as well academically as native English-speaking peers. Therefore, teachers need to use many strategies to assist their students in bridging this gap (Cervetti et al., 2015). One popular and well-recommended strategy is the SIOP model, sometimes referred to as simply Sheltered Instruction. Cervetti et al. (2015) explain that the SIOP model "presents ELLs with the same instruction their native English-speaking peers receive, only with instructional strategies that make content more accessible" (Cervetti et al., 2015, p. 96).

Echevarria, Short & Powers (2008) explain that many schools across the US use English when teaching the lessons, yet they struggle with effective teaching methods for much of the non-native English speaking students. The variety in school standards and the assessments that are associated with them have led the rally for improvement of academic performance in

American schools (Echevarria et al., 2008). They continue on to explain that teachers have a unique challenge when instructing ELLs, since understanding the subject matter taught is simply not enough. In addition to the standard methods used for native English students, the SIOP method draws from and complements the process while also adding specific tactics for increasing the skills of the ELL students (Echevarria et al., 2008).

Elfers & Stritikus (2014) comment on the issues encountered by teachers of ELL students. They state that teachers of these students have inadequate access to suitable learning materials and the students end up being deprived of a good education and "attempts to integrate students in structured English immersion classes without well-trained and well-supported teachers can rob them of the specialized help they need" (Elfers et al., 2014, p. 306). The study continues on to explain that many teachers fully admit that they are not well equipped to meet the challenges of teaching ELL students. They agree that they can benefit from any chance to learn about effective, suitably differentiated instruction for ELL students (Elfers et al., 2014).

According to Short, Fidelman, & Louguit (2012), SIOP started as an observation tool so that researchers could measure the implementation of the sheltered instruction practices. It evolved over a seven year period into a lesson planning and delivery approach. The SIOP model helps to provide a consistency that was initially missing as various teachers used a wide variety of techniques, causing inconsistency from class to class, teacher to teacher, and school to school (Short et al., 2012).

Why is the SIOP model needed? Salcedo (2010) explains that the SIOP model is an educational tool that focuses on teaching language through a content-based methodology. This protocol is designed to encourage students to employ their native language to support the learning process, especially when moving from concrete to abstract knowledge (Salcedo, 2010).

Short (2013) continues on to state that all teachers need to develop an approach to meticulously train their ELL students on vocabulary growth, content knowledge and the critical thinking process. Schools across the country have sought out the best practices for meeting the needs of both the teachers and the ELL students. One approach that has been widely employed in the United States is sheltered instruction which is the method of mixing language development with techniques to make content curricular topics more comprehensible to ELLs (Short, 2013).

The SIOP model combines features recommended for high quality instruction of all students, including cooperative learning and reading comprehension strategies (Short, 2011). Using the SIOP model, teachers target the linguistic demands ELLs face in the mainstream classrooms. The teachers are provided a framework to deliver lessons in three different categories: "preparation, examination, and review/evaluation" (Turkan & Buzick, 2014, p. 8). These three categories employ eight different components that help students better understand and retain information. These eight components, as explained by Turkan et al. (2014) are:

- lesson preparation
- building background
- comprehensible input
- strategies
- interaction
- practice/application
- lesson delivery
- review/assessment

(Turkan et al., 2014, p. 8)

These eight components are further broken out into 30 features of instruction. Short (2013) lists these 30 features that can be found in Appendix A (Short, 2013, p. 120). Echevarria et al. (2006) explain in more detail what the teachers need to do in each of these components to fully utilize the SIOP model. For example, the six features under Preparation examine the lesson

planning process, including the use of clearly defined language and content objectives, the use of

supplementary materials to aid in lesson clarity, and the use of meaningful activities. They go on

to explain that the Building Background section focuses on the teachers making explicit

associations to the students' experiences, linking past lessons with new ones, and always striving

to increase the students' vocabulary. Next, the Comprehensible Input section explains that

teachers need to adjust their plans based on students' proficiency, clearly explaining the

academic tasks and using multimodal techniques to enhance comprehension. Echevarria et al.

(2006) continue on to explain that the Strategies component emphasizes the fact that teachers

need to give students ample opportunities to use the learning strategies and that they need to

promote higher-order thinking skills. Next Interaction reminds teachers that they need to

encourage expanded speech and to group students properly for both language and content

development. They continue to explain the Practice & Applications section encourages the use of

activities that extend language skills and content learning and the Lesson Delivery section makes

certain that teachers present lessons that meet the planned objectives. Lastly, the Review and

Assessment section encourages teachers to provide comprehensive reviews of vocabulary and

content concepts and providing student feedback (Echevarria et al., 2006).

For each of these 30 features, there is a five-point scale. Short (2013) explains that this rating

scale allows observers to evaluate the lessons to determine how true they are to the SIOP model

and to provide specific feedback to help teachers employ the model in a more consistent fashion

(Short, 2013). Echevarria et al. (2006) praise the strength of the rating system in the SIOP model.

They state that this feature is critical to a teacher's professional development and that it allows

administrators to give concrete feedback as they observe and assess the teachers (Echevarria et

al., 2006). Short et al. (2012) explain that the five-point scale allows for measurement using a

scale of four (recommended practice) to zero (no evidence of practice). This scale allows

coaches and observers to rate the teachers and assist them in implementing the model more

systematically (Short et al., 2006). A sample rating scale is included in Appendix B.

Cisco & Padron (2012) state that when lessons include instructions and materials in the

students' native languages, the students are better able to make connections to known words and

understand content. For example, these authors refer to several studies that suggest that teachers

could scaffold learning by providing students with age-appropriate books in their native language

(Cisco et al., 2012). By using the students' native language to explain concepts, the students are

better able to understand the content while still trying learn the meanings of the English words

themselves. The study also emphasizes that teachers should encourage their ELL students to

"paraphrase in their native language text that is read in English or to switch between the first

language and English if it aids English reading comprehension" (Cisco et al., 2012, p. 12).

Turkan (2014) also emphasizes the importance of the use of native language in the

classroom. The paper states that "by permitting the use of students' native languages in the

classroom, teachers respect, affirm, and legitimize their roles in helping students to read and

write in English and to engage in discussions of text" (Turkan et al., 2014, p. 7).

In the research, it was sought out to see if using the eight strategies of the SIOP model

proved effective in helping ELLs in the classroom. One of the factors affecting the successful

implementation of the SIOP model is the commitment of the teacher to its implementation.

According to Short (2011), when teachers were trained in the concepts of SIOP and took the time

to learn and fully implement, their students perform better on assessments of academic learning

and literacy than students with teachers who are not trained in SIOP (Short, 2011). In addition to

improving academic English scores, this same article notes that there were also improvements

for teachers who taught mathematics, science and social studies (Short, 2011).

Valle, Waxman, Diaz, & Padro (2013) continue on with the same comments made by the

previous researcher. They explain that various studies have concluded that effective use of SIOP

lesson plans can help with the ELLs performance in mathematics including such academic

demands as understanding directions, receiving instant feedback, communicating with teachers

and peers. The paper continues on to explain that there is strong indication that ELLs develop

more mathematic skills if they are given lessons that include a combination of contextual, visual

and structural materials (Valle et al., 2013).

Freeman & Crawford (2008) explain that the SIOP model is about more than simply

including a modicum of instructional strategies into a teacher's lesson plans. With the use of the

SIOP model, students are able to develop the necessary literacy skills to achieve success in

mainstream classes and to assist them in passing standardized tests (Freeman et al., 2008).

Another element that affects the success of the implementation of the SIOP model occurs

when teachers give up before completely following through on all the principles of the model.

According to Calderon et al. (2014), this leads to an "underperformance by ELL students. Once a

teacher forms the perception that a research based intervention is inadequate they can become

frustrated with it and this frustration can lead the teacher to utilize other strategies" (Calderon et

al., 2014, p. 24). There is also the risk that teachers will be initially discouraged and revert back

to their former methods with which they are more accustomed and consequently fail and try to

then place the blame on the student and not with the strategy (Calderon et al., 2014).

Another factor affecting the success of the SIOP model as determined by the above study is teacher attitude. Calderon et al. (2014) completed a study to examine whether teacher attitude impacts their ability to promote successful academic outcomes for ELL students. This study concludes that teacher outlook can indeed have a positive influence on the teacher commitment to the SIOP model (Calderon et al., 2014). The teachers that were not as positive towards the SIOP model did not implement it as consistently. Those teachers with a more accepting attitude towards the SIOP model "related a more positive and caring attitude along with a sturdy belief in their ability to be a positive force in the life of their students" (Calderon et al., 2014, p. 29). The study continues on to conclude that there is an advantage to students taught by teachers with a more positive attitude toward the SIOP model since their enthusiasm helps their students be more successful (Calderon et al., 2014).

An additional factor to consider when attempting to maximize the success of the SIOP model is the professional development of the teachers. According to Cervetti et al. (2015), there is a better chance of success if teachers combine their educational materials with professional development. When these are linked together the result is "higher levels of teacher learning and strategy use" (Cervetti et al., 2015, p. 96). In addition, the research paper comments that a combined approach "may provide a balance between the time-and-cost-efficiency of curriculum based professional learning opportunities and the social support of face-to-face professional development" and the need for more teacher training (Cervetti et al., 2015, p. 96).

In addition, Batt (2010) states that traditional training may not be enough to successfully implement the SIOP model. Institutions may need to spend additional time and/or money to fully utilize the SIOP model. The journal article suggests cognitive coaching as a cost effective means

to improve learning outcomes for ELL students. Cognitive coaching involves reflection as well as "preconference, observation, post-conference" (Batt, 2010, p. 1000).

Batt (2010) also notes that if administration adds a cognitive phase to traditional training plans that there is a substantial gain in the learning process. It is imperative to the successful implementation of the SIOP model that time for coaching is allocated to the overall training plan for teachers. This is especially important when teaching ELL students and other linguistically diverse students (Batt, 2010).

In that same study, Batt (2010) notes that many schools, both within the United States and internationally, invest great amounts of time, effort, and money on professional development in order to assist teachers in their learning about research-based best practices for English learners (Batt, 2010). It is imperative that administrators do not fall short in allowing teachers to reach their full potential with regard to the SIOP model. Two of the research papers mentioned the importance of coaching in the teachers' training repertoire. Batt (2010) concludes that an important part of traditional training should include a cognitive coaching phase, since it adds considerable value. It continues to state that the time spent on coaching is critical for strong implementation of the SIOP model and that it will greatly improve the academic and second language achievement for "culturally and linguistically diverse students" (Batt, 2010, p. 1005). In a different research paper, Short (2013) emphasizes the importance of coaching in the implementation of the SIOP model. The support that coaches provide to the teachers greatly assists the teachers in improving their implementation of the model (Short, 2013).

In another research paper, Hopkins, Lowenhaup & Sweet (2015) note that there might be subject-specific demands with which teachers have to deal. Some classes such as mathematics can be viewed as free of language that might be unique to students that were learning English

(Hopkins et al., 2015). In addition, this research paper proposes that there needs to be in-depth and continued professional development with regard to supporting the ELL language and content knowledge development. This would help with the language improvement in all subject areas, not just English (Hopkins et al., 2015). Echevarria et al. (2006) also point out the importance of ELL students mastering not only English language and vocabulary, but also developing an understanding of the way that English is used in academic subjects (Echevarria et al., 2006). Reeves (2006) praise the way that the SIOP models are providing linguistically modified instruction to build ELLs academic and language proficiency simultaneously. When SIOP is used in mainstream classrooms, the SIOP techniques can enhance instruction for both ELL and non-ELL students (Reeves, 2006).

Cirino, Pollard-Durodola, Foorman, Carlson, & Francis (2007) contend that in order to close the achievement gap between ELL and non-ELL students, teachers need to be able to handle a variety of levels of student oral language proficiency and vocabulary knowledge. They suggest that teachers need to scaffold their instruction to meet the needs of these diverse learners and structure their classroom lesson plans to include lengthy student participation using complex syntax and verbal communication. This will assist the students in developing academic language proficiency (Cirino et al., 2007).

Elfers et al. (2014) explain that ELL teachers work with an incredibly diverse population, dealing with students from widely divergent cultures, different levels of language proficiency, uneven content-area and backgrounds, and vastly different school experiences. "Two enduring issues stand out from the scholarship on instruction for this student population: the challenge of advanced academic achievement and attention to sociocultural dimensions of the schooling experience" (Elfers et al., 2014, p. 310).

Heineke, Coleman, Ferrell & Kersemeier (2012) emphasize the need for teachers to

create learning communities that value diversity and set high standards for their ELL students.

Teachers that are able to create culturally relevant pedagogy are able to help their students make

easier connections between the material being taught and the student's local and global

community. These teachers help their students work in greater cooperation with other students as

they try to help each other learn the subject content. These teachers with culturally diverse

teaching methodology also help their students develop the required skills to raise their academic

development while still respecting the students' diversity and individual differences (Heineke et

al., 2012).

Another aspect of a successful implementation deals with the involvement of the families

of the ELL students. Hopkins et al. (2015) note that there was a need for school staff to develop

better understandings of families and communities (Hopkins et al., 2015). This study determines

that this applies to a variety of areas including the teachers, their principals, and the district

management. This includes the need for expanded staff development on understanding the

idiosyncrasies of the various cultures, cautioning teachers not to jump to conclusions just

because of the way a student (or family member) looks or dresses and encouraging them to spend

time trying to understand why the students react certain ways in certain situations (Hopkins et

al., 2015).

In another study, Wasselli, Hawrylak, & Scantleburys (2015) mention that families play

an important role in supporting their childrens' goals toward participation in careers in science,

technology, engineering, and mathematics (STEM) (Wasselli et al., 2015). This study continues

on to emphasize the very important role that parents play in shaping the future of their children

with regard to education. It recommends that educators work with the families "advocating for

families to engage in the work of schools, yet recognizing the unique cultural, linguistic, and

economic factors that may shape such engagement" (Wasselli et al., 2015, p. 5). The authors

continue on in the study asking the teachers to work with the parents, encouraging them to

provide an understanding home environment, helping their children with homework, and

attending school events. The study acknowledged that teachers and families have similar goals

for the students but complementary areas of impact and information, along with different levels

of expertise" (Wasselli et al., 2015, p. 5).

Gonzales (2012) likewise emphasizes the needs of understanding the students' home life

and the "amount of exposure the child has to the English language…or extended family members

who have mentored the child" (Gonzales, 2012, p. 293). Gonzales (2012) further stresses the

importance of gathering detailed data about the family's educational level and whether any

siblings have had good or bad experiences at the school. She recommends "in the case of young

ELLs, it is best to gather this home language history during a home visit" (Gonzales, 2012, p.

293).

However, there are several challenges to successfully implementing the SIOP model.

Schools may not even see the need for the SIOP model. Echevarria et al. (2006) note that if a

sheltered model is not used at a school, language development is likely to be disregarded since

the teachers are already under so much pressure just to cover the curriculum (Echevarria et al.,

2006). Reeves (2006) notes that many teachers feel that they lack adequate training to work with

ELL students. Many of the teachers that Reeves surveyed indicated that they were not even

interested in receiving training for several reasons. Some felt there should be specific instructors

designated as ELL teachers, rather than having all teachers learn the model. Some felt they did

not receive enough professional development to successful implement, so they simply gave up.

Lastly, some felt that there should not be a differentiation in instruction (Reeves, 2006).

Another challenge to the SIOP model implementation was observed by Echevaria,

Richards-Tutor, Chinn, & Ratleff (2006) who noted that many teachers simply did not feel that

they had the time for all the conferences needed and the additional lesson preparation time. Some

unions caused restrictions on the time needed for the teachers to implement the SIOP model with

true fidelity (Echevaria et al., 2006).

Salcedo (2010) documents in her research several of the challenges the teachers she

worked with encountered. For example, when implementing the Building Background features,

some teachers had issues with respect to the preparation time involved. Some had difficulties

estimating the time to allow for each component in a class. Others found that the time for

planning and organizing was overwhelming. Another aspect that some teachers found

challenging dealt with key vocabulary (words that students used to understand class content).

The teachers did not see the need to emphasize the use of key vocabulary and so they didn't. One

teacher even expressed the realization that they did not know that key vocabulary should even be

included in the SIOP process (Salcedo, 2010).

Kim et al. (2012) provide more examples of challenges to the SIOP model

implementation in their research paper. The time commitment required by teachers for the

successful implementation of the SIOP model is critical. Principals tend to pick teachers who are

willing to go above and beyond their normal responsibilities, and these teachers are already

overcommitted. It can therefore be challenging to ensure teacher availability on all the training

dates. Some teachers had troubles fully executing the SIOP model due to inadequate school

resources and the inflexibility of the curriculum. Many schools have rigid requirements and

guidelines that must be followed that are both time consuming and do not always align well with the SIOP model (Kim et al., 2012).

The assessment of teacher performance is a critical piece of information shared between teacher and administration. Often, test scores are the main component of this process. Behrent (2015) notes that testing is endorsed as the main means of holding both teachers and their schools accountable to chosen performance targets (Behrent, 2015). This researcher continues on to comment that the drive for increased testing, and the combined effect of adding on the layer of the common core requirement, has increased the resistance of teachers to the punishment system inflicted on teachers whose students do not test well. "Recent polls show that only twenty-five percent of the voters support the use of test scores to evaluate teachers" (Behrent, 2015, p.55).

Administration has many difficulties when assessing teachers of ELLs versus teachers that do not teach ELLs. The decision needs to be made as to what exactly would be used to evaluate teachers: subjective teacher observations or student performance on standardized tests. Turkan et al. (2014) point out that both states and districts are working to respond to the demand for implementing valid and reliable ways of assessing teacher quality and to create opportunities for better understanding, recognizing, and measuring the quality of teaching content to ELLs (Turkan et al., 2014).

Hinde, Popp, Jiminez-Silva & Dorn (2011) explain that evaluating ELL achievement is extremely complex and is a more difficult issue than simply adapting lessons to meet the needs of ELLs (Hinde et al., 2011). According to Jones, Buzick & Turkan (2013), there is evidence that principals and other school management often lack the expertise necessary to evaluate teachers' instruction of ELLs (Jones et al., 2013). The challenges of trying to develop reliable measurement criteria has received much attention from researchers. Jones et al. (2013) also

comment that if administration does not take into account all of these challenges that it would

undermine the validity of implications about teachers' effectiveness, especially in cases of

teachers who have a large proportion of ELL students in their classroom, and it would be

counter-productive to the goal of providing a high-quality education to all students (Jones et al.,

2013). Also, Elfers et al. (2014) caution that schools characteristically lack proper assessment

measures to determine the needs of ELL students or to hold systems answerable for students'

academic progress (Elfers et al., 2014).

In synopsis, Khong & Saito (2014) explain that the speedy increase in the size and

diversity of the ELLs pose a great challenge to teachers and administrators. To work well with

ELLs, there needs to be a reform of several major areas including educational policies,

curriculum, materials, and management, as well as a reform of teacher training (Khong et al.,

2014). They continue on to discuss the varied challenged faced by teachers of ELL students. The

demands on these learners is great since they are concurrently learning both the language and the

content knowledge. Therefor many teachers need to spend more time instructing their ELL

students (Khong et al., 2014).

Khong et al. (2014) continue on to explain that ELL students have many unique

characteristics and that their numbers are increasing very quickly. They "bring a wide variety of

cultures, languages, and family and educational backgrounds to the classroom" and "therefore

require great effort on the part of teachers, in responding to them academically, culturally, and

linguistically" (Khong et al., 2014, p. 220). They continue on to explain that the hurdles

confronting educators are a combination of social, institutional and personal in nature, noting

that all three of these facets are interrelated. The complexity of the problems that instructors face

teaching ELL students are not simply technical in nature, but are a mixture of cultural , social,

economic, and political issues of a much wider range (Khong et al., 2014).

In summary, based on the research, there is an ever increasing number of English

Language Learner students in the United States and the gap between the achievement of ELL

and non-ELL students could be significantly reduced with use of the SIOP model. Turkan et al.

(2014) acknowledge that "teachers play a key role in helping ELLs succeed academically and

believe they are most responsible for narrowing the achievement gap" (Turkan et al., 2014 p. 4).

The eight components of the model provide a wide range of methods to enhance the learning and

achievements of ELL students. These eight components are further broken out into 30 features of

instruction which delineate criteria that can be used to assist in lesson planning, lesson delivery

and teacher assessment. Short et al., (2012) note that the SIOP model is not a step-by-step

approach. It does, however, accommodate variations in teaching styles, allowing them to

accomplish their ELL goals in ways suited to various lesson plans (Short et al., 2012). The

degree of the success can be affected by many factors including how well the teachers embrace

the SIOP model, how willing the teachers are to give the model time to fully develop, teacher

attitude, and the willingness of the school system to allow teacher time for professional

development to learn and fully implement the model. In addition, consideration must be given to

the challenges that might be encountered implementing the SIOP model. One of the main

challenges is time commitment by the teachers: to learn the model, to include the various extra

steps in their lesson planning and execution, and to participate in the review and assessment

steps. It is imperative that all the positive aspects as well as the potential challenges are

considered and evaluated when applying the SIOP model to maximize the potential positive

impact of the model's implementation.

Methods

Researcher Stance

My research study was completed in an urban district in New York State, the City of Rochester. The rate of ELL's in Rochester is extremely high and is continuing to increase. I chose to send out surveys at both of the schools I currently teach at, since I was planning to compare the responses in general, as well as specifically comparing the results between the two schools. The one school was primarily English speaking, and the other school was a Bilingual school, known for a high population of non-English speakers and a willingness to go above and beyond to ensure the success of the ELL students.

I am a current teacher in both The Beth Johnson School and The Juan Lopez School in the Rochester City School District: one in the mornings and one in the afternoons. I currently teach Health and am a graduate student pursuing my Masters of Science in Special Education. Due to my schedule as an itinerant teacher, I am unfamiliar with most of the teachers in each building. Therefore, I chose to use surveys to collect data rather than complete interviews, since I wanted to get as much feedback as possible.

Participant Analysis

I selected the teachers randomly by counting any survey that was returned. Overall, there were 13 surveys returned, four surveys returned from the English-speaking school and eight surveys returned from the Bilingual school. One survey was also returned from a teacher that teaches at both schools. The surveys were sent out electronically in the hopes of increasing the number of responses received. The participants were classroom teachers at the elementary and

secondary level. I never named any of the participants, since I wanted to maintain the anonymity of the surveys.

I did not need consent for my surveys since I work in the two schools. I began by creating a six question survey that asked teachers to identify how they implement each part of the Building Background section of the model. I chose to focus on the Building Background part of the model since it is such an important part of allowing students to make connections and fully understand vocabulary and content. I wanted to focus on one section of the model, rather than asking about all eight parts, because I wanted to keep the survey short so that I could get back as many surveys as possible.

Data Analysis

I utilized the information gained in the surveys to assess if the SIOP model is being used in the two schools and if not, why not. Once I received all of the data back, I looked at how many of the teachers were using each part of the Building Background part of the SIOP model. I then compared the English-speaking school to the Bilingual school. Lastly, I wanted to know whether all teachers were using the proven to work SIOP method and if not what barriers prevented the full implementation of the SIOP model by the teachers at these schools.

The first survey question teachers were asked was: *How do you link your content to students' background experiences? Please explain*. When analyzing the results I noticed that two out of 13 teachers specifically referenced African American ethnicity. I also noted that two of the 13 teachers specifically referenced adapting their lesson plans to incorporate real world situations and topics to which the students can especially relate. Lastly two teachers particularly stated they

use information from the students' age group and culture when creating their lesson plans. They learn what they can about their students' lives to better link the content.

The second question on the survey was: *How do you link content to past learning and new concepts? Please explain.* When I examined the results, I noticed that most of the 13 teachers stated they always start out a new lesson plan by relating to past lesson plans. They often start with a detailed review of the past lesson. Two of the 13 teachers specifically commented that each and every lesson plan builds on the previous one and naturally flows into the next one. One teacher explicitly mentioned "scaffolding" which is one of the primary concepts of the SIOP model.

The third question on the survey was: *How do you encourage your students to acquire vocabulary? Please explain.* Three of the teachers documented that they incorporate games and puzzles to increase their students' vocabulary. One of the teachers even encouraged their students to hunt for new words throughout the day and then share what new words they learned. Eight of the teachers used the more fundamental, basic method of simply explaining the new vocabulary terms and using repetition and vocabulary lists to teach the material to their students. Lastly, one of the 13 teachers did not seem to have a specific method for teaching vocabulary. The teacher stated that he/she simply uses the new words when teaching the content. They assumed the student would learn the vocabulary and content concurrently.

The fourth question asked was: *What have you heard about the SIOP model to help English Language Learners succeed in the classroom? Please explain.* Ten of the teachers had never even heard of the SIOP model. The other three teachers had not only heard of the model, they employed it consistently when creating their lesson plans.

The fifth question was: *How do you use the SIOP model in your classroom? Please explain.* Six teachers stated they were not using the SIOP model. The consistent reason seemed to be the time commitment involved when a teacher commits to using the model. Several of the participants simply stated that they did not even know what the SIOP model was. One participant stated that they do not believe that the SIOP model works. Of the three teachers using the model, they explained that language objectives are always a major consideration when teaching lesson content. These three participants shared that they use activities such as deeper discussion, hands on activities, and language considerations.

The sixth question asked to participants was: *If you do not use the SIOP method, why do you not use it?* Nine of the participants stated that they did not know what it was. Also, one participant stated that they were not familiar with the acronym "SIOP." The other three participants did not respond.

The last question of the survey was simply: *Which school do you currently teach in?* Eight participants reported that they work at The Beth Johnson School. Only four of the 13 stated that they work at The Beth Johnson School. Also, one participant stated that they work at both schools.

Findings and Discussion

After analyzing the data, there are a few reactions I had. I really liked the analogy one of the teachers used when developing lesson plans that linked past learning to new concepts. It dealt with the concept of a "chain link fence". I likewise have the same view of lesson plan development, using previous ones as a building block when creating new ones. With regard to my analysis of whether the teachers had heard of the SIOP model, I can honestly say that I did

not think any of the teachers would have heard of the SIOP model. I was pleasantly surprised that several of the teachers not only heard of the model but actively employed it in their teaching and found it helpful. Since I truly believe in this model, it is refreshing to know that it is being used. Conversely, I was disappointed to learn that one of the teachers stated he/she felt that the SIOP model "does not work" but that he/she did not provide any detail.

I understood why several of the teachers commented that the SIOP model can be quite time consuming. From the research I have done, this is a common complaint about the model among teachers. However, I was pleasantly surprised to read the comments from the three teachers that currently use the SIOP model. I was happy that they saw its benefit and that they seemed to "naturally" incorporate the methodology into their lesson plans,

After reading and analyzing the results, I found that questions five and six were a bit repetitive. If teachers were not using the SIOP model in their classroom, they answered that they didn't know what it was for question five and then when asked why they do not use the SIOP model, they could only answer that they did not know, again.

I noticed that most answers given by teachers at The Juan Lopez School were more thoughtful and included much more detail than the teachers at The Beth Johnson School. They also shared more in depth strategies that they use, most of which are actually part of the SIOP model. I was relieved to discover this, since The Juan Lopez school is a bilingual school, and it is therefore more important that the teachers there are utilizing these strategies since they are teaching such a high population of English Language Learners, compared to The Beth Johnson School. Teachers at The Juan Lopez School were also much more creative in how they encourage their students to learn vocabulary and build background and the different ways they accomplish this.

Conclusion

Overall, I have discovered that they are certain strategies of the SIOP model that several teachers currently use in their classroom. The strategies shared by participants that were commonly used were: building on students' prior knowledge, relating content to students' daily lives and teaching and re-teaching vocabulary in a variety of different ways. I saw common themes of strategies that worked for many of the teachers, which I can use in my own teaching career. Knowing that what they shared were tried and true methods, allows me as a teacher to see strategies that I can try to incorporate into my own classroom.

The survey given had a few restrictions that could have affected the outcome of the study. These restrictions include the limited number of participants, the fact that there were more participants at one school than the other school, and also the restricted time frame. There were only 13 surveys returned from the schools, so the results are indicative of those 13 teachers that completed the survey, but not necessarily every teacher in both buildings. In addition, only two schools were surveyed. Also, twice as many participants were from the bilingual school compared to the primarily English speaking school. This skewed the results a bit, although I feel that there were definitely common themes among all of the teachers at The Beth Johnson School and all of the teachers at The Juan Lopez School. Lastly, there was less participation in the survey than I would have liked due to the short time frame I was able to administer the survey. My research had to be concluded during one semester, so the survey could not be extended to allow for more participation.

When looking at the results, not as many teachers are currently using the SIOP method as I had thought, so I hope that as a result of receiving and/or participating in the survey that the number of teachers at both The Beth Johnson School and The Juan Lopez School will increase in

the future. I want to impart upon my fellow teachers the many benefits of implementing this

model into their own classroom. I will speak to the administrators at both of the schools to see if

trainings and information about the model could be offered as part of the professional

development that teachers are already required to attend. I have already been asked for more

information about the model from participants who took the survey and wanted to learn more. I

feel that with a bit of work and persuasion, I can help both schools increase the utilization of

components of the SIOP model in the classrooms.

The research and findings indicate that when teachers use the components of the SIOP

model in their classroom, they are more likely to help their students gain and retain information

and vocabulary. As evidenced by the survey, many teachers are already applying the parts of the

SIOP model in their teaching and lesson plans whether they are familiar with the model or not.

These components of the model are even more important when used in a bilingual school, which

the survey has shown that most teachers surveyed are using. Much more time and energy needs

to be put in to allow more teachers to understand the significance of the SIOP model in helping

students to learn content, vocabulary and allow optimal chances of retention. Between

professional development and school-wide acceptance of the model, the utilization of the

elements of the SIOP method will hopefully continue to grow.

References

Batt, E. (2010). Cognitive Coaching: A critical phase in professional development to implement

sheltered instruction. *Teaching and Teacher Education, 26,* (4), 997-1005.

Behrent, M. (2015). More than a score: Neoliberalism testing & teacher evaluations. *Workplace:*

A Journal of Academic Labor, 26, 52-64.

Calderon, C. T. & Zamora, E. (2014). Factors affecting the implementation of sheltered

instruction observation protocols for English language learners. *National Forum of*

Educational Administration and Supervision Journal, *31,* 20-31.

Cervetti, G., Kulikowich J., & Bravo, M. (2015). The effects of educative curriculum materials

on teachers' use of instructional strategies for English language learners in science and on

student learning. *Contemporary Educational Psychology, 40,* 86-98.

http://dx.doi.org/10.1016/j.cedpsych.2014.10.005

Cirino, P., Pollard-Durodola, S. D., Foorman, B., Carlson C. D., & Francis, D. J. (2007). Teacher

Characteristics: Classroom Instruction, and Student Literacy and Language Outcomes in

Bilingual Kindergartners. *The Elementary School Journal, 107,* (4), 341-364.

http://dx.doi.org/0013-5984/2007/10704-002

Cisco, B. K. & Padron, Y. (2012). Investigating Vocabulary and Reading Strategies with Middle

Grades English Language Learners: A Research Synthesis. *Research in Middle Level*

Education Online, 36, (4), 1-23.

Echevarria, J., Powers, K, & Short, D. (2006). School Reform: A Model for English-Language

Learners. *Journal of Educational research, 99*, (4), 195-210.

Echevarria, J., Richards-Tutor, C., Chinn, V., & Ratleff, P. A. (2006). Did They Get It? The Role of Fidelity in Teaching English Learners. *Journal of Adolescent & Adult Literacy, 54*, (6), 425-434. http://dx.doi.org/10.1598/JAAL.54.6.4

Echevarria, J., Short, D., & Powers, K. (2008). Making Content Comprehensible for Non-Native Speakers of English: The SIOP Model. *International Journal of Learning, 14*, (11), 41-49.

Elfers A. & Stritikus, T. (2014).How School and District Leaders Support Classroom Teachers' Work with English Language Learners. *Educational Administration Quarterly, 50*, (2), 305-344. http://dx.doi.org/10.1177/0013161X13492797

Freeman B. & Crawford, L. (2008). Creating a Middle School Mathematics Curriculum for English Language Learners. *Remedial and Special Education, 29*, (1), 9-19. http://dx.doi.org/10.1177/0741932507309717

Gonzales, V. (2012). Assessment of Bilingual Pre-K-Grade 12 Students: A critical Discussion of Past, Present, and Future Issues. *Theory Into Practice, 51,* 290-296. http://dx.doi.org/10.1080/0040584.1.2012.726058

Heineke, A., Coleman, E., Ferrell, E., & Kersemeier, C. (2012). Opening Doors for bilingual students: Recommendations for building linguistically responsive schools. *International Research in Geographical and Environmental Education. 20,* (1), 47-63. http://dx.doi.org/10.1177/1365480212450235

Hinde, E. R., Popp, S. E. O., Jimenez-Silva, M., & Dorn, R. I. (2012). Linking geography to reading and English language learners' achievement in US elementary and middle school classrooms. *Improving Schools Journal. 15,* 2, 130-147.

Hopkins, M., Lowenhaup, R. & Sweet, T. (2015). Organizing English Learner Instruction in

New Immigrant Destinations: District Infrastructure and Subject-Specific School

Practice. *American Educational Research Journal, 52*, (3)*, 408-439.*

http://dx.doi.org/100.3102/0002831215584780

Jones, N., Buzick, H. & Turkan, S. (2013). Including Students with Disabilities and English

Learners in Measures of Educator Effectiveness. *Educational Researcher, 42*, (4)*, 234-*

241.

Khong, T., D. H.K. & Saito, E. (2014). Challenges confronting teachers of English language

learners. *Educational Review, 66*, (2)*, 210-225.*

http://dx.doi.org/10.1080/00131911.2013.769425

Kim, J. Y., Walker C., & Manarino-Leggett, P. (2012). Equipping Classroom Teachers for

English Language Learners. *Journal of Educational Research, 99*, (3)*, 131-142.*

Reeves, J. (2006). Secondary Teacher Attitudes Including English-Language Learners in

Mainstream Classrooms. *TESOL Journal, 3*, (4)*, 722-734.*

Salcedo, D. (2010). The SIOP Model: Transforming the Experiences of College Professors. *Gist*

Education and Learning Research Journal, 78-93.

Short, D. (2011). Research on academic literacy development in sheltered instruction

classrooms. *Language Teaching Research. 15,* (3), 363-380.

http://dx.doi.org/10.1177/1362168811401155

Short, D. (2013). Training and Sustaining Effective Teachers of Sheltered Instruction. *Theory*

into Practice. 52, 118-127. http://dx.doi.org/10.1080/00405841.2013.770329

Short, D., Fidelman, C. & Louguit, M. (2012). Developing Academic Language in English

    Language Learners Through Sheltered Instruction. *TESOL Quarterly Journal. 46,* (2),

    336-361.

Turkan, S. & Buzick, H. M. (2014). Complexities and Issues to Consider in the Evaluation of

    Content Teachers of English Language Learners. *Urban Education,* 1-28.

    http://dx.doi.org/100.1177/0042085914543111

Valle, M. S., Waxman, H. C., Diaz, Z., & Pedro, Y. N. (2013). Classroom Instruction and the

    Mathematics Achievement of Non-English Learners and English Learners. *The Journal

    of Educational Research. 106,* 173-182.

    http://dx.doi.org/10.1080/00220671.2012.687789

Wasselli, B., Hawrylak M. F., & Scantlebury, K. (2015). Barriers, Resources, Frustrations, and

    Empathy: Teachers' Expectations for Family Involvement for Latino/a ELL Students in

    Urban STEM *Urban Education,* 1-22. http://dx.doi.org/10.1177/0042085915602539

Appendix

APPENDIX A

30 detailed SIOP 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., interviews, letter writing,

        simulations, 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 levels (e.g., slower rate, enunciation, and

         simple sentence structure for beginners)

    11. Clear explanation of academic tasks

12. A variety of techniques used to make content concepts clear (e.g., modeling, visuals, hands-on activities, demonstrations, gestures, body language)

Strategies

13. Ample opportunities provided for students to use learning strategies

14. Scaffolding techniques consistently used, assisting and supporting student understanding (e.g., think-alouds)

15. A variety of questions or tasks 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 language and content objectives of the lesson

18. Sufficient wait time for student responses consistently provided

19. Ample opportunities for students to clarify key concepts in Ll as needed with aide, peer, or L1 text

Practice & 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 levels

Review & Assessment

27. Comprehensive review of key vocabulary

28. Comprehensive review of key content concepts

29. Regular feedback provided to students on their output (e.g., language, content, work)

30. Assessment of student comprehension and learning of all lesson objectives (e.g., spot

checking, group response) throughout the lesson

(Short, 2013, p. 120)

APPENDIX B

SIOP five-point scale

Observer: _____   Teacher: _____
Date: _____   School: _____
Grade: _____   ESL level: _____
Class: _____   Lesson: Multi-day Single-day (circle one)

Directions:
Circle the number that best reflects what you observe in a sheltered lesson. You may give a score from 0–4.
Cite under "Comments" specific examples of the behaviors observed.

Total Score: ☐   %Score ☐   Tape #:_____

	Highly Evident 4	3	Somewhat Evident 2	1	Not Evident 0	NA
Preparation						
1. Clearly defined content objectives for students	☐	☐	☐	☐	☐	
2. Clearly defined language objectives for 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 (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	☐	☐	☐	☐	☐	

Comments:

Instruction

	4	3	2	1	0	NA
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)	☐	☐	☐	☐	☐	

Comments:

	4	3	2	1	0	
Comprehensible Input						
10. Speech appropriate for students' proficiency level (e.g., slower rate, enunciation and simple sentence structure for beginners)	☐	☐	☐	☐	☐	
11. Explanation of academic tasks clear	☐	☐	☐	☐	☐	
12. Uses a variety of techniques to make content concepts clear (e.g., modeling, visuals, hands-on activities, demonstrations, gestures, body language)	☐	☐	☐	☐	☐	☐

Comments:

	4	3	2	1	0	
Strategies						
13. Provides ample opportunities for student to use strategies	☐	☐	☐	☐	☐	
14. Consistent use of scaffolding techniques throughout lesson, assisting and supporting student understanding such as think-alouds (see Glossary)	☐	☐	☐	☐	☐	
15. Teacher uses a variety of question types throughout the lesson including those that promote higher-order thinking skills (e.g., literal, analytical, and interpretive questions)	☐	☐	☐	☐	☐	

Comments:

APPENDIX—Continued

	Highly Evident		Somewhat Evident		Not Evident	
	4	3	2	1	0	NA
Interaction						
16. Frequent opportunities for <u>interactions</u> and discussion between teacher/ student and among students, which encourage elaborated responses about lesson concepts	☐	☐	☐	☐	☐	
17. <u>Grouping configurations</u> support language and content objectives of the lesson (see Glossary)	☐	☐	☐	☐	☐	
18. Consistently provides sufficient <u>wait time for student response</u>	☐	☐	☐	☐	☐	
19. Ample opportunities for students to <u>clarify key concepts in L1</u> (see Glossary)	☐	☐	☐	☐	☐	☐
Comments:						
Practice/Application	4	3	2	1	0	NA
20. Provides <u>hands-on</u> materials and/or manipulatives for students to practice using new content knowledge	☐	☐	☐	☐	☐	
21. Provides activities for students to <u>apply content and language knowledge</u> in the classroom	☐	☐	☐	☐	☐	☐
22. Uses activities that integrate all <u>language skills</u> (i.e., reading, writing, listening, and speaking)	☐	☐	☐	☐	☐	
Comments:						
Lesson Delivery	4	3	2	1	0	
23. <u>Content objectives</u> clearly supported by lesson delivery	☐	☐	☐	☐	☐	
24. <u>Language objectives</u> clearly supported by lesson delivery	☐	☐	☐	☐	☐	
25. <u>Students engaged</u> approximately 90–100% of the period (see Glossary)	☐	☐	☐	☐	☐	
26. <u>Pacing</u> of the lesson appropriate to the students' ability level	☐	☐	☐	☐	☐	
Comments:						
Review/Assessment	4	3	2	1	0	
27. Comprehensive <u>review</u> of key vocabulary	☐	☐	☐	☐	☐	
28. Comprehensive <u>review</u> of key content concepts	☐	☐	☐	☐	☐	
29. Regularly provides <u>feedback</u> to students on their output (e.g., language, content, work)	☐	☐	☐	☐	☐	
30. Conducts <u>assessment</u> of student comprehension and learning of all lesson objectives (e.g., spot checking, group response) throughout the lesson (see Glossary)	☐	☐	☐	☐	☐	
Comments:						