ABSTRACT

Title of Dissertation:	TEACHER PERCEPTIONS OF ONLINE SIOP® PROFESSIONAL DEVELOPMENT
	Aundrea McCall, Doctor of Education, 2018
Directed by:	Dr. Drew Fagan, Assistant Clinical Professor, College of Education, Multilingual Research Center
	Dr. Margaret McLaughlin, Associate Dean for Research and Innovation and Partnerships, College of Education

Educators are concerned with the academic attainment of English learners (ELs) in U.S schools, as this student population's numbers continue to grow. In 2014-15, 4.6 million, or about 9%, of all public school students in the United States were ELs. The number of ELs in public schools is projected to represent 25% of all public school students by 2025 (National Center for Education Statistics, 2017; National Clearinghouse for English Language Acquisition, 2013).

The purpose of this study was to examine non-ESOL elementary content area teachers' perceptions of the online SIOP® professional

development course regarding implementing the six features of lesson preparation and applying the eight components of SIOP® within their lesson preparation. The study was guided by three research questions and an online survey to obtain teacher perceptions regarding their implementation of the key SIOP® components in lesson preparation, application of the eight SIOP® components, and potential ways that SIOP® had positive effects on instructing ELs.

Qualtrics (a web-based tool) was used to create the descriptive survey and generate reports from the participants' responses. From the research findings, recommendations were made to contribute to the literature and for future study in general, for the school district, and the researcher. SIOP® as an online professional development tool has the potential to reach a growing audience of content teachers who require best practices and sound approaches to teaching ELs in their classrooms.

Teacher Perceptions of Online SIOP® Professional Development

by

Aundrea Latrise McCall

Dissertation submitted to the Faculty of the Graduate School of the
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Advisory Committee:
Dr. Drew Fagan (Co-Chair)
Dr. David Imig (Co-Chair)
Dr. Helene Kalson Cohen
Dr. Margaret McLaughlin (Dean's Representative)
Dr. Pamela R. Shetley

Dedication

This work is dedicated to the best dog in the world, Kerby. He started this work with me, sitting at my feet, lying on my papers, and walking across the keyboard. However, his body failed him although his mind was still there. I know he is here in spirit as I finish this work. To the other best dogs in the world, Blancka and Tia, who also sit at my feet during hours of writing and never complaining, I thank you.

Also, I dedicate this work to my nephews: Paul III (P), Austin, and Christian. I hope this work inspires you to do great things in your life and that you always take care of each other (and me).

Acknowledgements

I would like to acknowledge my family, particularly my sister, Anissa Wilson, for allowing me the space and time to complete this 3.5-year journey. Thank you to my family, friends and colleagues who were often my cheerleaders and sounding boards as I worked consistently and quietly on this work.

I am deeply appreciative of my staff for encouraging me to stay the course and being my greatest supporters. You are the best staff in the world and I am lucky to have each and every one of you.

I have to acknowledge the school staff where I started my career in 1995. Although we are no longer together, you created the foundation for me to take on the task of Principal and the task of pursuing a doctoral degree at the same time.

Thank you to Cohort II of the best school district in Maryland and the University of Maryland College Park. We motivated each other in different ways and in different capacities, but we will be forever fused together.

I would like to recognize the district's ESOL and Bilingual Assessment Office as well as Academic Programs (Reading, English, Language Arts) for their offer of data support, encouragement and answering so many questions.

Lastly, I want to acknowledge my defense committee, particularly my advisors, Dr. Margaret McLaughlin and Dr. Drew Fagan for their endless revising, editing, and offering suggestions. Thank you for your patience and guidance as I went through this process.

Table of Contents

List of Tables

Chapter 1: Introduction

Problem Statement

Educators are concerned with the academic attainment of English learners[1] (ELs) in U.S schools, as this student population's numbers continue to grow. In 2014-15, 4.6 million, or about 9%, of all public school students in the United States were ELs. The number of ELs in public schools is projected to represent 25% of all public school students by 2025 (National Center for Education Statistics, 2017; National Clearinghouse for English Language Acquisition, 2013).

Data from Kerby Public Schools[2] (KPS) indicate that ELs in KPS are performing below their peers in reading across all grade levels. KPS is a large school district located in Maryland that draws from urban, suburban, and rural communities. Sixty-four percent of the students qualify for Free and Reduced Meals (FARMS). Enrollment of ELs in KPS grew from 8,303 to 19,770 students in the 10-year period between 2005 and 2015, representing a 138% increase. As of June 2017, 23,976 students are identified as ELs in KPS. Sixty percent (14,280 students) are in kindergarten through 4th grade.

Reading proficiency levels for the EL population indicate that much attention is needed to assist the students in being college and career ready. According to the KPS ESOL Enrollment and Testing Specialist (personal communication, July 3, 2017), 18,397 ELs (77%) fall within the lower proficiency levels, meaning that the students' oral and written language skills impede their communicative output. In response to this, KPS has

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[1] While there is a plethora of different labels used for this student population such as English Language Learner (ELL) and Limited English Proficiency (LEP), the current study will use English learner (EL) to align with the terminology used in the federal Every Student Succeeds Act (ESSA) of 2015 and the 2018 ESSA MD State Plan.

[2] Kerby Public Schools is a pseudonym for a large urban school district in Maryland.

implemented a Literacy Action Plan (KPS Facts and Figures, 2016) with two main goals: (a) reading and writing across all content areas; and (b) reasoning across all content areas. At the elementary level, a Balanced Reading Program is at the core of the reading program. Balanced Reading is based on nationally researched best practices and the Maryland College and Career Standards. It is aligned to the McGraw-Hill reading and supplemental materials used in K-5 classrooms (KPS Facts and Figures, 2016). For this study, the elementary level was chosen because of the district's strong focus on literacy specifically at the elementary level (Strategic Plan, 2015).

The performance of ELs on national, state, and district assessment results show that there are significant achievement gaps between ELs and their non-EL peers at the elementary grade level. For example, the 2017 National Assessment of Educational Progress (NAEP) indicates that 40% of 4th graders scored at or above proficient in reading while only 10% of the ELs scored at that level. The 2017 Maryland NAEP 4th grade reading scores also show significant gaps. Reading scores for 4th graders indicate that 36% scored at or above proficient, while ELs scored 10% at or above proficient.

Similar to the state and national data, the ELs in KPS also have reading achievement gaps compared to the district averages reported on the Maryland Report Card (2017). For example, Maryland State Assessment (MSA) 4th grade reading scores show that on average 83% of all KPS students who took the test scored at or above proficient compared to 60% of the ELs. The Partnership for Assessment of Readiness for College and Career (PARCC) replaced the MSA and results are equally dismal for ELs. On the 2017 administration, 33% of 4th graders met the standard for English Language Arts (ELA), while just 3% of ELs met the standard (Maryland Report Card, 2017).

Other indicators used to measure student achievement in KPS show troublesome results as well. The Kindergarten Readiness Assessment (KRA), a relatively new assessment to KPS since 2015, exposed a vast difference in EL student preparation for kindergarten. Overall readiness indicated that 35% of all kindergarten students in 2016-2017 in the district demonstrated proficiency, while 18% of ELs demonstrated proficiency.

Kindergarten through 2nd grade students are also assessed using the Developmental Reading Assessment (DRA) in KPS. While 72% of 2nd grade English speaking students scored at or above proficient in 2016, 0% of EL students scored at or above proficient.

These data point to a need to build teacher capacity in working with ELs. Currently, KPS has approximately 9,000 teachers and needs to consider how to build the prepare its teacher population to increase the academic performance of its ever-growing EL population. With 24,000 of the 129,000 total student population within KPA identifying as ELs, addressing the academic needs of the ELs is necessary to consider. This current study examines one way in which the school district has begun to address this issue.

The New Challenges

School districts throughout the nation, like KPS, are facing a major challenge in addressing the low academic achievement among a group of students whose numbers are increasing. The increase in ELs has significant implications for teacher quality and effectiveness as teachers' knowledge and skills will need to extend beyond content and pedagogy. According to Samson and Collins (2012), little attention has been paid to what

3

content teachers need to know and be able to do as it concerns ELs specifically. Further, content teacher ability to cross oral language development with academic language is a needed skill. The achievement gaps described above are particularly troubling in light of new demands being placed on school districts. The Common Core State Standards (CCSS) for ELA articulates rigorous grade-level instruction in speaking, reading, writing, and listening. Specific to ELs, the CCSS "provides an opportunity to implement significant changes in the way in which…[ELs] are served in American schools" (Walqui & Heritage, 2012, p. 1). With the advent of the CCSS, educators are tasked with how to design instruction so that ELs can interact with increasingly sophisticated linguistic resources and the range of language registers, or styles, including: language progressions, demands, scaffolds, and supports (Santos, Darling-Hammond, & Cheuk, 2013).

In addition, the PARCC assessment, which is used for school accountability in Maryland, is aligned with Maryland's College and Career Readiness Standards. The content, performance, and language demands of this assessment are more sophisticated than in previous assessments. ELs experience more language challenges, as they sit for the assessment due to the structure represented in the Model Content Frameworks (i.e., reading complex text, writing to text, and research) of PARCC (Partnership for Assessment of Readiness for College and Careers [PARCC], 2016a). Therefore, linguistic accommodations for ELs become necessary to provide accessibility to the test (Partnership for Assessment of Readiness for College and Careers [PARCC], 2016b).

The Every Student Succeeds Act (ESSA) of 2015 requires increased state accountability as a priority. According to the Teachers of English to Speakers of Other Languages Association (TESOL, 2015), the commitment to federal funding to increase

language instruction as well as the acknowledgement of language acquisition complexity is a positive step. However, ESSA does not outline explicit support for educator preparation, including multilingual enrichment programs that would support ELs.

Meeting the challenge. The key to the district meeting these new challenges is a well-prepared teaching force. Developing teachers is paramount to ELs' achievement. Content-area[3] and EL teacher knowledge, skills, and dispositions must apply to classroom instruction and center around CCSS (Fenner, 2013). The current achievement of ELs points to a weakness in content teacher capacity that provides the majority of instruction to ELs. Kareva and Echevarría (2013) recognized that "large numbers of second language learners in [content] classes have teachers who are not prepared to teach them in ways that facilitate their acquisition of language and content" (p. 243). Further, explicit attention to teaching academic language within content lessons is required know-how of content teachers (Echevarría, 2012).

Traditionally, English for Speakers of Other Languages (ESOL) certified teachers have been primarily responsible for instructing ELs who were eligible to receive ESOL services. However, not all ELs receive these services for unlimited amounts of time. The goal is for these students to attain not only academic proficiency in the content areas but also English language proficiency within 6 years of entering the school system (ESEA section 1111(c)(4)(A)(ii)). Within the last decade, content specific teachers (i.e., ELA, science, and math) have been expected to use strategies to teach students with limited English language skills in earnest. In contrast, a report provided to the Center for

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[3] According to a Title III/EL Specialist, MSDE does not have an official definition of teachers who are not EL specialist teachers. Although on the website (2018), this term is common when referring to the English Language Development (ELD) standards. KPS uses this term in the ESOL Process Guide (2017-2018) when describing teachers who have ELs in the mainstream classroom.

American Progress suggests that under current practice, content teachers' preparation does not correlate to the needs of ELs in the classroom with respect to oral language practice and academic language development (Samson & Collins, 2012). Additionally, once ELs attain English proficiency, they must continue to be monitored for up to 4 years after exiting and while they are sitting in content classrooms. Starting in the 2018-2019, Local Education Agencies (LEAs) must provide short- and long-term goals and deliverables to ensure ELs attain proficiency within 6 years (Maryland Every Student Succeeds Act (ESSA) Consolidated State Plan, 2018) and can meaningfully demonstrate what they know on ELA, science, and math assessments.

This project focuses on building the capacity of elementary content teachers who have EL students in their classes and who must provide content specific curricula to the students. In particular, the study investigates professional development related to one model of sheltered instruction known as Sheltered Instruction Observation Protocol (SIOP®), which has been found to help ESOL and non-ESOL teachers alike acquire skills necessary in making content accessible to ELs and also to develop their English skills (Short, 2013).

Preparing Content Teachers to Instruct English Learners

In order to raise the achievement of ELs, all teachers are required to have the knowledge and skills to provide…appropriate language and academic support (ESSA Section 8101(42), 2016) as part of their professional development. Content teachers may gain these skills through their pre-service preparation programs or through professional development activities provided by their districts or other sources. Thirty states, including Maryland, do not require non-ESOL teachers to have training in working with ELs as a

part of their initial certification (50-State Comparison, 2014). However, State Education

Agencies (SEAs) and LEAs are required to provide professional development as part of

the language assistance program. Ballantyne, Sanderman, and Levy (2008) point out that

the breadth, depth, and quality of the training varies. For instance, pre-service licensing

requirements vary by the state, field experiences differ, and the focus of the training

generally relies on foundations rather than methods. For in-service teachers, unless they

are specifically seeking licensure in ESOL, professional development in EL

methodologically is not mandated for recertification. Conversely, the newly reauthorized

ESSA now requires that school districts provide instructional specialists to implement the

professional development for content in-service teachers (Section 8101(42), 2016). The

caveat is that the professional development must be research-based, data-driven, and

classroom-focused.

Further, federal government mandates require school districts to provide services

to ELs, but no state policies follow on how to instruct the students (Calderón, Slavin &

Sánchez, 2011). While this is getting some attention in ESSA, the guidance provided in

the Act is non-regulatory; in other words, it provides clarification of the law and outlines

best practices but falls short of binding states to specific qualifications for teachers of ELs

(ESEA Section 3115(c)(2), 2016; TESOL International Association Releases Statement

on Every Student Succeeds Act, 2016). A NCES (2014) survey of content teachers found

that 12% said they were not at all prepared to meet the needs of ELs. This same survey

reported that 30% of teachers have opportunities for professional development in

working with ELs. Regardless, a "majority of teachers working with English learners

believe that they are not adequately prepared to meet their students' content-specific learning needs" (Janzen, 2008, p. 1010).

In 2008, the United States Department of Education's (USDE) Office of English Language Acquisition partnered with the National Clearinghouse for English Language Acquisition to set policy and program recommendations to improve the professional development of content teachers who teach ELs. Background information from this partnership did not prove useful in pinpointing how many surveyed content teachers had participated in professional development specific to ELs either at the pre-service or in-service stage. Section 3111(b) (20(B) of the ESSA, 2016, however, regulates that SEA's and LEA's are obligated to train teachers to effectively instruct ELs. This approach takes its guidance from Title VI of the Civil Rights Act of 1964, whereby the professional development of said teachers is to be supplemented by the chosen language assistance programs.

Best Practices for Teachers to Work with English Learners

It is important that teachers understand the characteristics of students who are considered to be ELs. While many teachers might assume that ELs are foreign born, the Maryland State Department of Education (MSDE; 2016) reports that 60% of ELs are US-born students. Harper and de Jong (2004) indicated that working with ELs required "just good teaching" (p. 153). However, the International Teaching English to Speakers of Other Languages Association ([TESOL], 2015) suggests that a more sophisticated awareness of language and pedagogical practices are required. Content teachers may not be successful in teaching ELs if opportunities across the curriculum are not fully

integrated with requisite instructional strategies and best practices that prove successful for the population.

Preparing teachers to meet the need of English language and literacy development for ELs in all classrooms is critical, yet many teachers are not adequately prepared to meet this challenge (Lee & Buxton, 2013). In recent years, there has been a greater emphasis on providing professional development to teachers. NCES (2011) reported that 27% of the teachers in public schools had participated in professional development related to instructing ELs. According to TESOL (2015), the newly reauthorized ESSA provides "broader support for professional development…[but] does not include any specific proposals or mechanisms to increase the number" (p. 2) of second language teachers. Left out are specific resources for how to expand the knowledge base of current pre-service and in-service teachers who work with ELs. TESOL also asserts that the resources and requisite knowledge to address the needs of EL students require subject-specific instructional strategies that go beyond content teacher preparation and should have been acknowledged in the ESSA as well as in professional development programs and certification requirements for all teachers. As of 2016, the non-regulatory guidance has been clarified, in that Section 8101(42) directs the SEA and LEA to offer sustained and collaborative professional development for teachers of ELs. The design of the professional development should "give teachers of English Learners…the knowledge and skills to provide effective instruction and appropriate language and academic support services" (p. 22).

Highly qualified is no longer a distinction for professional development programs. According to the ESSA (2016), the professional development of in-service EL teachers

must meet the *effective* distinction whereby the program must be of sufficient intensity and duration to have a positive effect. The guidance discourages one-day and short-term opportunities that do not have a measure of success, follow-up, or feedback.

For content teachers to be *effective* in addressing ELs' language and literacy needs across the curriculum, they need to possess a deep understanding of language progression (Master, Loeb, Whitney & Wyckoff, 2016). This includes helping ELs with among other things, sounds distinctions, language variance, and dialectical difference. Academic language refers to cognitive demands that differ in conversational versus academic language development (Bunch, 2013). Teacher skills will need to follow the continuum of knowing how to simplify grammar and lexicon as well as when to code-switch by adapting language support materials including print, video, and song (Gillanders, 2007; Samson & Collins, 2012). This is where the highest level of evidence with regard to language and academic outcomes will need to follow a measurement that is data-driven, job-embedded, and classroom-focused (ESSA Non-Regulatory Guidance, 2016).

Central to assisting ELs in the area of language progression and academic content learning is writing language objectives that align to content objectives and local and state standards (¡Colorín colorado¡, 2017). Doing so provides for more second language learning opportunities by allowing language learners to be exposed to, practice with, and be assessed on various language skills, all within the context of academic content learning. These include language functions, vocabulary related to the content, and language strategies that make-up the language skills (i.e., speaking, listening, reading, and writing).

In addition, content teachers include increasing ELs' interaction with their peers, explicitly teaching vocabulary and building background by using supplementary aids, and making content comprehensible by modifying the content, process, and product. Formative assessment is an important step as it monitors the learning. Feedback, portfolios, and learning logs are methods used to keep track of progress and scaffolding learning (¡Colorín colorado¡, 2017).

English Language Development (ELD) Standards. The English Language Development Standards (ELD) for grades K-12 are explicitly connected to the CCSS (English Language Development [ELD] Standards, 2018). The ELD standards are developed in conjunction with the can-do philosophy of teaching ELs (Guiding Principles of Language Development, 2014) and highlight the fluid, flexible and on-going features of language development. Included in the language development are levels new to the standards: discourse level (linguistic), sentence level (conventions), and word/phrase level (vocabulary). Teachers must explicitly teach these standards which involve social instruction as well as communicating ideas and concepts in language arts, math, science, and social studies. Therefore, teachers need to know how to differentiate and scaffold along a continuum of higher-level skills such as categorizing, and comparing and contrasting (ELD Standards, 2018).

WIDA Standards. All ELs within the state of Maryland are assessed using Assessing Comprehension and Communication in English State-to-State for English Language Learners, or ACCESS. ACCESS is part of the World-class Instructional Design and Assessment (WIDA) consortium and assesses standards "and performance indicators that describe…four different grade level clusters and five different content

areas" (ACCESS for ELLs 2.0 Summative Assessment section, para. 2-4, 2014).

Reading, listening, speaking, and writing are assessed for a composite score. WIDA

incorporates standards that are interactive and interdependent on one another. The

interdependence culminates into academic language development (ELD Standards,

2018). Frameworks that support teaching techniques and strategies make new

information accessible to ELs. Specific features for EL instruction should include setting

language objectives for each lesson (Kareva & Echevarría, 2013), collaborating,

recognizing can-do approaches to teaching and learning, and innovation (WIDA, 2014)

that lead to language development and academic achievement for ELs. Each state sets an

Annual Yearly Progress broken into two categories termed the Annual Measurable

Achievement Objectives (AMAO). The AMAO measures EL's progress by AMAO I,

which is the percentage of students making progress in English, and AMAO II, which is

the percentage of students who attain English proficiency in the testing year.

There is a need for content teachers to meet the standard set forth by their school

districts to teach ELs. This can be accomplished through initial preparation and

professional development. According to Learning Forward (2017), professional

development that advances teacher understanding of evidence-based strategies should

give teachers of ELs the knowledge and skills that provide instruction and appropriate

language and academic support.

Pre-service teacher preparation. Teacher education lags behind the growth of

EL students in U.S. schools. Only six states require specific coursework concerning

ESOL methods and second language acquisition (SLA) theory for content teachers

(National Comprehensive Center for Teacher Quality, 2009). Programs that were

accredited by the National Council for Accreditation of Teacher Education ([NCATE],

2008) have assessed teacher disposition or self-efficacy toward teaching ELs.

Durgunoğlu and Hughes (2010) found that a teacher's self-efficacy has a connection to

pre-service teachers' level of preparation toward working with this population. However,

the level of preparation may not adequately prepare the teachers to work with

linguistically diverse students. A teacher's self-efficacy remains stable across years

(Darling-Hammond, Chung, & Frelow, 2002) and significantly drops as they experience

the real classroom setting (Hoy & Spero, 2005). Additionally, considering that ELs are

mostly in schools with lower socio-economic statuses, teacher self-efficacy shows

moderate decline (Karabenick & Noda, 2004).

At the same time, it is important to consider teacher efficacy in teaching ELs.

Studies over the last two decades have shown that teacher self-efficacy toward teaching

ELs is positively correlated to their own English proficiency and sense of

multiculturalism. The President's Advisory Commission on Educational Excellence for

Hispanic Americans (2000) reported that approximately 70% of teachers felt only

moderately or not at all prepared to address the needs of students from diverse cultural

and linguistic backgrounds. Eslami and Fatahi (2008) found that teachers who self-

reported that they are efficacious are more inclined to use communicative-based

strategies useful in teaching ELs. Further, since teacher perceptions[4] influence their

instructional practices and how they perceive their own effectiveness, it is suggested that

teacher education programs provide English language enhancement professional

development for EL teachers in order for them to maintain or improve their self-efficacy

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[4] Perceptions refer to the insight teachers have about their students. This insight is based on their own background knowledge and life experiences.

(Bunch, 2013; Yturriago, 2010).

Colleges and universities that prepare teachers to teach ELs have a responsibility to develop partnerships with districts to produce practical, contextual, and theoretically based informed practice (Samson & Collins, 2012). Researchers (Darling-Hammond, 2008; Lucas, 2011; Villegas & Lucas, 2002) of pre-service programs suggest that teacher preparation programs are largely to blame for the lack of preparation. Téllez and Waxman (2005) state that "pre-service teacher education is often hindered by state-mandated abbreviated programs [that] routinely fall back to the methods-only approach" (p. 1) to teacher preparation. Although teacher preparation programs have made gains in responding to the need, the coursework, and programs take on what Hedgecock (2002) termed as an "organic and process-oriented" (p. 299) view of language learning. The process merits the involvement of pre-service teachers in direct field and practical placements where the learning needs of ELs are part of the experience. This includes guiding teacher preparation institutions with the demands implicit in teaching EL students as well as helping to shape policy on teacher preparation expectations (Bunch, 2013; Santos et al., 2013; van Lier & Walqui, 2012). Pre-service teachers require an empirical understanding of teaching ELs through action research and school-based inquiry not always implicit in preparation programs. Explicated differentiated instruction and appropriate instructional methods that assist teachers in making appropriate instructional decisions based on individual students sparks debate. Typical teacher development focuses on what students should do with less attention on what teachers should do to facilitate the learning (McGraner & Sáenz, 2009).

In-service teacher professional development. Since many teachers have not been prepared to teach ELs during their pre-service education, high quality professional development provided by school districts is critical. According to Harper and de Jong (2004) newly prepared teachers are mastering teaching their subject matter at the same time as learning how to manage the teaching and learning process and adjust to the culture of the school. This leaves the preparation of teaching ELs to the school districts. In contrast, Ballantyne et al. (2008) reported that only 26% of content teachers have received professional development related to instructional practices for EL learners. Further, in-service teachers have similar challenges to newly prepared teachers in adjusting to teaching EL students. They have to adjust to these students *in situ*. The in-service teachers are often less likely to be accommodating and more likely to ignore linguistic diversity (Osborn, 2007) and perpetuate misconceptions about teaching ELLs (Harper & de Jong, 2004).

In-service teachers benefit from interaction with pre-service teachers in that the sharing of knowledge and skills promote effective instruction of ELs. Therefore, the goals of professional development should lead to effective teaching practices focused on building the knowledge and skills of educators (Learning Forward, 2017). These changes lead to inquiry-based approaches to teacher development and permeate the experience.

Effective professional development. Working with the Learning Policy Institute, Darling-Hammond, Hyler and Gardner (2017) substantiate the elements for effective professional development that are: content focused; incorporate active learning; support collaboration; use models of effective practice; provide coaching; offer feedback and reflection; and sustained. In order to be effective, professional development should be

considered a cumulative process (Short, 2013) that supports the communities of practice inside and outside of the classroom. Given the increasing numbers of ELs, the increasing achievement gap between ELs and their English-speaking peers, and the increasing under-preparation of content teachers who teach ELs, professional development grounded in fidelity to the intervention and to the process is likely to reverse these trends. Like ELs who require instructional scaffolding, professional development frameworks are most effectual when hands-on practice, application, and coaching are part of the process (Calderón et al., 2011; Learning Forward, 2017). Effective professional development encourages teachers to adapt to new knowledge and accept their own beliefs about teaching ELs. Fullan's (2013) change perspective suggests that precision, clarity, and specificity are necessary for professional development to not be prescriptive but instead a clearer picture on how to do it, assess it, and put the learning into practice in the classroom.

New design models call for an integration of theory and practice where teachers collaborate, reflect, and have access to research based models of practice. According to the National Academy of Science (2007) if done in an on-line situation, the learning can be "richly interactive…give participants multiple opportunities to reflect" (p. 4) and support more collaboration among teachers. Conversely, if done right and with the supportive technology of videoconferencing and discussion forums, the learning potential is multiplied with spontaneity, creativity, and connectivity to the content (Chen et al., 2009).

If presented in an online format, professional learning can be tailored to meet teachers' different needs (National Academy of Sciences, 2007) and deepen their content

knowledge and change their pedagogical practices. Growing research is pointing to online teacher professional development as an alternative opportunity for teachers to gain skills (Chen, Chen, & Tsai, 2009). Online standards (Quality Matters, 2013; National Standards for Quality Online Courses, 2011) for effectiveness include: Course Overview, Learning Competencies, Assessment, Materials, Learner Interaction, Course Technology, Learner Support, and Accessibility.

Recommendations found in *The Mirage* (Jacob & McGovern, 2015) outline necessary steps for school systems that incorporate defining what it means to help teachers improve, reevaluating professional development programs already in existence, and reinventing what supporting teachers looks like ([The New Teacher Project, TNTP], 2015). Few research studies are available that focus directly on (Telléz et al., 2005; Center for Research, Education, Diversity, and Excellence [CREDE], 2015) teacher development of ELs. However, as the research expands, implementation of effective program development, including some in Maryland, adds to the literature.

The district and school's culture must be committed to a sustained and reflective professional community of learning. McGraner et al. (2009) suggests the importance of content teachers having solid knowledge of their subject matter before they can effectively teach ELs. Professional development for EL content teachers' focus is on content but must include attention to the language needs of students in the content classrooms. Important to the process is the creation of professional learning situations in which teachers set their own pace for learning (Short et al., 1999) and are provided with the opportunity to reflect. If done in an online format, this leads to a more scalable situation for the professional learning to occur (Chen et al., 2009).

Pre-service and in-service content teachers benefit from being taught strategies that are coherent and systematic (Garet, Porter, Desimone, Birman, & Yoon, 2001) as well as effective in helping EL students acquire academic language and content knowledge (Short, 2013). These strategies form core competencies in (a) sociocultural and political foundations, (b) foundations of second-language acquisition, (c) knowledge of teaching content to ELs, (d) using effective instructional practices, and (e) applying accommodations (McGraner et al., 2009).

Coherent and systematic professional development starts with validated intervention programs that are grounded in theory, have built in time for teachers to practice in a job-embedded style that includes coaching, and have an assessment measure.

Professional development in KPS. Professional development is the primary strategy for improving student achievement at the national, state, and district level. KPS is dedicated to continuous systemic improvement as outlined in the Strategic Plan (2015). Funding is earmarked in the budget to support this endeavor. According to the 2017 budget, the improvement is divided into three categories: central office professional development, school-based professional development, and on-site professional development to schools. Specific support for ESOL professional development is not specifically delineated; however, priority schools (which may include ELs) receive targeted attention. Over $1,700,000 is allocated in the proposed budget for professional development.

The Office of Talent Development (OTD) is designed to provide meaningful learning opportunities for schools and individuals. Approximately $8,000,000 supports this office. The office is charged with supporting the Strategic Plan's goal three of

workforce development and educator effectiveness. Like McIntyre, Cheng-Ting, Muñoz, and Scott (2010) points out, the district is committed to linking professional development to student achievement as well as to concrete problems of practice. To that end, OTD partners with the district ESOL Office and the International Student Counseling Office (ISCO) to offer a range of professional opportunities for teachers, face-to-face and online. These offerings focus on the development of skills and the acquisition of knowledge (that enhance) performance, including some required by MSDE to obtain or maintain certification.

Professional organizations (Learning Forward, 2015; TNTP, 2015) alike indicate that professional development designs must assist educators in moving beyond comprehension at the surface levels of new practices to developing complete connections that inform student achievement. While professional development discussion for ELs continues to require attention, it is only significant if "situated in discussions of instructional strategies that support academic success of language minority within ideologically…grounded discourse" (Molle, 2013, p. 119). Instructional strategy is not the only answer. Teacher attempts to explore what they do with and think about students, while they simultaneously examine standards and assessments that take into account the language needs of ELs, and present value to the professional development (Buysse, Castro, & Peisner-Feinberg, 2010) experience. The mission statements of the district's OTD, ISCO, and ESOL Office support this design model. Not only is the professional development grounded in new practices, strategies, and discourse that support EL student achievement, there is also coursework in language acquisition, in-depth study for

scaffolding language development with elementary newcomers, and childhood literacy in the early years are part of the program.

Maryland Policies Related to Teacher Certification

Maryland certification does not require an ESOL endorsement for content area teachers. MSDE (2003) outlines specific professional standards for all teachers in terms of what they should know and be able to do regarding EL students. For certified ESOL teachers, their professional standards are defined by NCATE/TESOL. Content teachers wishing to add an ESOL endorsement require either completion of 30 credits of post-baccalaureate coursework or qualifying through PRAXIS/PPST (Overview of Maryland Testing Requirements, 2018).

Since ESOL was not considered a core academic subject under Title I of the ESEA, ESOL teachers are not required to have *effective* status unless they are the teacher of record in grades K-12 (Maryland Public Schools, 2003). Since the reauthorization of the ESEA to the ESSA (2015), the ESSA transition plan supports new professional development opportunities for ELs and the educators that support them. A 2016 memorandum from the Maryland Interim State Superintendent outlined substantive changes conditioned by the ESSA. One of the conditions is the shift of ELs' interventions and supports, assessment types, and standards to the states. Under Maryland's plan, the state will be required to update their accountability systems to include ELs as a primary focus. Maryland is currently exploring options for developing universal EL requirements for initial teacher licensure. Until then, the state will continue to determine teacher qualifications.

In order to provide service to ELs, MSDE works under the auspices of Title III (amended by ESSA of 2015) to form professional development partnerships with local school systems. The focus on reading and math strategies is intended to improve how teachers align these standards with instructional strategies designed to increase ELs' language proficiency. Job-embedded professional development (JEPD) is provided to systemic leadership teams who then turnkey the learning to the classroom teachers. As such, "job-embedded professional development refers to teacher learning that is grounded in day-to-day teaching practice and is designed to enhance teachers' content-specific instruction…" (Hirsh, 2009, p. 2).

The Maryland Teachers of English to Speakers of Other Languages Association (MDTESOL) positions itself to support ESOL teachers in improvement, advancement, and advocacy. Goals of the organization are aligned with policies of MSDE, with a major goal emphasizing leadership of professional concerns. Focus areas around this goal include an interest section (IS). The IS's mission is to connect professional development opportunities to the members. Teacher Education is one IS by which MDTESOL promotes professional development, supports ESOL as an academic discipline at the elementary level, and develops new resources for teachers (Overview of MD-TESOL Interest Sections, 2014, para. 9). According to Maryland TESOL (2014), "the exploration of best practices…offers endless possibilities for professional development" (para. 1).

The MD Teacher Staffing Report (Maryland State Department of Education, 2016) projects teacher shortage areas (based on trend data from the last 2 years) for the districts with ESOL being a critically difficult area to staff (p. 3). MSDE maintains the P-12 Longitudinal Data System Dashboards Home (2012) available via the staffing report.

Data from the report indicates that in school year 2014-2015, 96 (1.5% of new hires) ESOL Teachers were hired.

Efforts to Increase the Achievement of ELs in KPS

KPS is making efforts to increase the achievement of ELs. The district began in earnest to increase achievement in 2007 during an influx of newcomers. The U.S. Department of Education (2017) defines newcomers as any foreign-born students and their families who have recently arrived in the United States. Additionally, as a response to federal accountability requirements in core academic areas, "no longer could the learning needs of ELL students be dismissed to ELL specialists" (McGraner & Sáenz, 2009, p. 2) or could ELs be taught separately in sheltered classrooms. Integrated instructional approaches that more closely resemble content classrooms seem to be the more plausible approach to teaching ELs strategies that assist with language development (Quintero & Hansen, 2017) at the same time as learning content. Content teachers are, therefore, not absolved from the responsibility to provide highly effective instruction. In the district, EL program centers were decentralized in 2007 because of the vast numbers of ELs. Students requiring second language services were sent back to their base school.

Staffing. In the district, elementary staffing adjustments have been made to increase the achievement of ELs. In 2005, three coach and two mentor positions were added to service the 125 elementary schools. With the high effect of EL students at the elementary level, the Elementary ESOL Instructional Specialist values the influence of the Professional Development Team (PDT) developed in 2014. The PDT's mission is to support the professional development needs of content teachers through workshops offered after-school. The PDT is made up of 8 KPS master teachers who are paid per

diem to support the content educators. Six mentor teachers are, also, assigned to new ESOL teachers and are available to provide professional development and academic support.

A focus group of EL and content educators meets four times per year to focus on the needs of the lowest performing EL schools. Professional development and support is provided in technology use, creating language rich environments, and math instruction. In 2014, the focus group expanded to include Pre-kindergarten content educators although ESOL services are not provided to Pre-kindergarten students. The 10-member group supports three elementary schools in KPS. No additional support is available to the other 121 elementary schools irrespective of EL enrollment.

Further efforts to increase achievement continue since Maryland joined the WIDA Consortium in 2011. The district is working with state and local education agencies to strengthen and align EL standards and core content standards. The alignment efforts follow best practices that "are supportive of both English language learning and academic curricula learning" (McGraner et al., 2009, p. 12). Alignment shifts follow the U.S. reform agenda on EL teacher communicative competence and know how language functions (Téllez & Waxman, 2005; McIntyre, Kyle, Chen, Muñoz & Beldon, 2010), including restating, paraphrasing, and summarizing key concepts, and providing dialogue opportunities as well as adapting to culture growth during instruction. The shift also focuses on a learner-centered view of teaching and attention to discourse patterns (McIntyre et al., 2010).

Curriculum. Another effort to increase EL academic achievement comes with changes to the curriculum. The former Houghton Mifflin Language Series used in EL

pullout[5] sessions did not tie into the classroom learning. ELs returning to class had a difficult time correlating the learning from the pullout with the learning in the classroom. The ESOL Department has responded to this by creating a correlation document that ties into the Curriculum Instructional Map (CIM), including the new elementary reading series adopted in 2014, *Reading Wonders* for Kindergarten through 2nd grade, and *Reading Street* for 3rd through 5th grade. The Language-based Instructional Supplement for Supporting English Language Learners ([LIS], 2013) provides the focused vocabulary, strategy, and skill for one of the (typically) four focus stories, language structures found in the story, strategies for building background, theme, skill or strategy, suggested comprehension skill/strategy activities, and differentiated formative assessment and word work (LIS, 2013). For example, one ESOL Teacher in KPS (personal communication, December 6, 2015) stated that although the supplement focuses on one of the four possible stories, much of the skill and vocabulary development is applicable to the entire cycle. While the document is available to teachers as part of the site, it is a separate link and requires that teachers planning lessons navigate to another part of the site to access the resources. This can be troublesome for teachers who are already uncomfortable with accommodating ELs.

In 2016-17, the ESOL and Special Education (SPED) Departments collaborated to provide a correlation document based on the 3rd through 5th grade text, *Reading Street.* The LIS is general and based on skill/strategy development. For content teachers working with ELs, they navigate through the site to the LIS, scan the table of contents for the particular skill/strategy being taught, find the resource, and then tailor it for the needs

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[5] Pullout is the small group instruction beginning ELs receive in oral language development outside of the content classroom from the ESOL teacher (KPS Facts and Figures, 2016)

of the ELs in their classroom. This requires that teachers have background knowledge of teaching ELs and how the "can do" levels defined by WIDA and associated with the student are best implemented for the strategy/skill.

A supplemental document has also been provided for math beginning in 2016. The math document is topic-based (i.e., place value) and not specific to a particular grade level. All resources are available on the ESOL Google site, which is linked to the Elementary Reading Google site.

Instructional models implemented for ELs. KPS has implemented five instructional models over the past 10 years at the elementary level. Each instructional model is prescriptive for the proficiency levels of the ELs (Elementary ESOL Instructional Specialist, personal communication, March 22, 2017). Pullout is the most basic of the instructional models. While both content and ESOL teachers are responsible for the student's achievement, the focus of these pullout sessions is to build student confidence and to push oral language development. It is designed for students who are newcomers; however, the International TESOL Association points to benefits of many proficiency levels being pulled out at the same time based on the ESOL teacher's assessment. Intermediate and advanced students in KPS often participate in the push-in[6] instructional model. The goal of the ESOL teacher's pushing in to the class is to provide the scaffolding and supports for ELs to develop content area language. In addition, the ESOL and content teacher collaborate on the instruction, including planning for comprehensible input (TESOL, 2016).

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[6] Push-in is academic support provided by the ESOL teacher inside the grade-level classroom to intermediate/advanced ELs (KPS Facts and Figures, 2016).

Co-teaching and consultative instructional models are also used by KPS. Co-teaching situations require that the schedule of the students and teachers match. The instruction in the classroom is dependent on both teachers while ELs at various proficiency levels are grouped together. Since the CCSS require enriched academic discourse for all students, this model provides opportunity for both teachers to receive guidance from one another, strip down the standards, and apply strategies that will include ELs in the actual teaching and learning (Maxwell, 2013). The consultative model is where the ESOL teacher is in an itinerant capacity and may serve several schools with small EL populations. This teacher consults with the content educator on scaffolding, adapting, and modifying instruction.

While the previous instructional models are meant for ESOL specialists, sheltered instruction is one model that is geared towards content teachers working with ELs directly. Sheltered instruction, otherwise known as Sheltered English Immersion (SEI), Content and Language Integrated Learning (CLIL), and Specially Designed Academic Instruction in English (SDAIE), is designed to help students simultaneously learn content and language that is not in their native language (Kareva and Echevarría, 2013). According to Short (2013), sheltered instruction makes "content accessible to English learners and develops students' academic English skills" (p. 118) at the same time. The method integrates language development with techniques to make content topics more comprehensible to ELs. Further, it is a means for making grade-level academic content more accessible, while at the same time promoting language and literacy development of ELs. McGraner and Sáenz (2009) point to sheltered instruction as having distinct educational goals that do not merely focus on increased oral language to measure student

learning. Rather, sheltered instruction protocols work to blend oral language engagement with cognitive engagement (McGraner & Sáenz, 2009, p. 2).

As schools focus more on preparing all students to be college and career ready, ELs achievement becomes a focal issue for content teachers. In addition to McGraner et al. (2009), researchers (e.g., Gersten & Baker, 2000; Sáenz, Fuchs, & Fuchs, 2005; Slavin & Cheung, 2003) have identified five instructional practices that promote sheltered instruction effectiveness:

- Instruction must be explicit and systematic;

- Academic vocabulary must be taught;

- Structures should be in place to facilitate classroom discourse;

- Visuals should be effectively used; and

- Feedback to ELs should be consistent and purposeful.

The goal of sheltered instruction is to initiate a substantial change in practice that involves a new way of thinking about the content (Short, 2013). Teachers are busy planning and implementing lessons that meet the standards prescribed by the district. Adding the challenge of identifying academic language and literacy demands while conveying both language and content knowledge requires more than just one technique.

Sheltered Instruction is effective for ELs because they are able to access the core curriculum concurrently while developing their academic English proficiency. Sheltered instruction is beneficial as a teaching strategy because it makes lessons meaningful and understandable to second language learners (Kareva & Echevarría, 2013). Modified lessons and adjustments in lesson planning and delivery facilitate the learning. Sheltered

instruction is not a water-downed approach to teaching; it allows for multifaceted content

to be delivered while ELs are also grasping the language (Short et al., 1999).

KPS uses Structured Immersion (SI), a form of sheltered instruction designed to

help intermediate and higher proficiency ELs access grade-level content (Clark, 2009) in

conjunction with the CIM. The model is still in use but the district's ESOL Department

has switched the professional development focus to Sheltered Instruction Observation

Protocol (SIOP®) since the tool is aligned with WIDA and is a form of sheltered

instruction that focuses on the linguistics involved in making content comprehensible.

The Sheltered Instruction Observation Protocol (SIOP®)

SIOP® has been validated over 15 years and is currently considered to be the

most effective sheltered instruction approach (Short et al., 2011). Researchers found that

"it has been shown that when teachers implement the model to a high degree, student

achievement rises in English language proficiency" (Kareva & Echevarría, 2013, p. 239)

and in content area knowledge. The protocol is not a reading intervention; its main goal is

to support EL achievement in reading. McIntyre et al. (2010) characterize this model as a

strategy that includes balance between sociocultural and cognitive practices. The goal of

the model is to build on students' cultural and linguistic backgrounds. The methodology

builds on ELs' known worlds, whereby the use of their native language patterns build

English skills.

Research evidence. SIOP® began as an observation tool to measure ESOL

teachers' implementation of sheltered instruction. One of the lead creators, Echevarría

(2012) indicated that it was originally "developed as an approach for integrating language

development with content teaching…[and] it offered teachers a model of instruction for planning and implementing effective lessons" (p. 2) for ELs.

SIOP® has evolved into a lesson planning and delivery approach. Guarino et al. (2001) established the validity and reliability of SIOP®. The Center for Research on Education Diversity and Excellence (CREDE, 2003) conducted a 7-year study funded by the U.S. Department of Education to further establish the effectiveness of the tool. Additionally, findings from the National Reading Panel (2000) and the National Literacy Panel on English Language Learners (Shanahan & Escamilla, 2006) have studied specific strategies found to be effective with ELs. Among the strategies found to be most effective are the ones that focus on high levels of teacher-student interaction, a variety of grouping configurations, and a strong relationship between oral language proficiency and literacy (August & Shanahan, 2006a). All of these strategies correspond with the features of SIOP®.

Further empirical studies have tested the model (Batt, 2010) and refined the professional development portion of the protocol. Additional studies set out to prove the fidelity of SIOP® professional development if the training is sustained and ongoing (Echevarría & Short, 2011). Research evidence (Echevarría, Richards-Tutor, Chinn & Ratleff, 2011; Echevarría, Short, & Vogt, 2008; Short, Fidelman, & Louguit, 2012) from the literature provide the following best practices:

- The instrument is a highly reliable and valid measurement of sheltered instruction;
- The professional development process is proven to improve teacher practice;

- The model is effective with increasing ELs achievement if implemented to a high degree; and

- Implementation positively impacts test scores documented in several districts. (Questions about the SIOP® Model and Its Implementations section, 2018)

Pearson Education (The SIOP® Model Helps Every Teacher Become a Language Teacher, 2018) has adopted the SIOP® protocol as their professional development tool because of its research base and concurrent focus on teaching language and concepts. The professional development is offered in conventions and workshops online or face-to-face. Pearson Institutes divide the learning into foundational and advanced sections. The advanced sections offer follow-up coaching. CAL (2018) also offers SIOP® professional development in collaboration with school districts. Although Pearson Education and CAL collaborate with SIOP® and SIOP® (face-to-face) has been empirically validated over many years, the online element has not been confirmed. Therefore, concluding that this mode of instruction is effective to SIOP® implementation may be premature.

Components. The model has 30 features of instruction divided into eight components (Echevarría, Vogt, & Short, 2017).

1. Lesson preparation features the planning process. Language and content objectives are incorporated at this point. The objectives are articulated to the students and scaffolding techniques are included in the lesson plan.

2. Building background features distinct ways to make connections with students' background, prior learning, and vocabulary. Directly teaching the vocabulary including word structures and relations is included at this point.

3. Comprehensible input is a feature that is mostly teacher directed. The teacher is cognizant of his/her rate of speech and how models, gestures, and repetition can affect student learning.

4. Strategies involve scaffolding by asking critical thinking questions through authentic text use.

5. Interaction involves ELs collaborating with classmates in order to evaluate, confirm, and elaborate. This is when the language objective becomes crucial.

6. Practice allows students to interact with the new content as well as apply the language skills.

7. Lesson delivery observes for teacher effectiveness in delivering the objective by adjusting pace and engaging students.

8. Assessment involves formative assessment throughout the lesson and the teacher makes adjustment where needed, and closes the lesson.

Concepts and language skills born from SIOP® are aligned with WIDA and state standards for speaking, listening, reading, and writing. The SIOP® can be presented in three settings including ELs with no grade-level literacy in their native tongue, bilingual ELs who are navigating language and content, and ELs who are learning content for a specific purpose (Kareva & Echevarría, 2013).

Learning the model. Sheltered instruction has proven to be effective in increasing teacher capacity to work with ELs. For example, The National Center for Education Evaluation and Regional Assistance (NCEE) (2014), in a study examining school turnaround, illustrated how instructional strategies found in sheltered instruction proved most effective in increasing teacher knowledge and skills. Making content comprehensible refers to how teacher's design lessons to increase academic and linguistic competencies (Echevarría, Vogt, & Short, 2017). Teacher's rate of speech, explanation of tasks and provision strategies (i.e., scaffolding procedures) are the foremost knowledge and skills teachers require to be effective. According to Poole (2005), these strategies are easily "accessible to novice and veteran teachers" (p. 75). Thus, SIOP®, as a central model for sheltered instruction, has become a key component for teachers learning how to address ELs' needs.

Learning in a professional development situation takes time. It is offered in various formats such as through school districts, at national institutes, and virtually online. Teachers participating in SIOP® professional development are charged with understanding the underlying theories associated with second-language acquisition so that they better understand the challenges ELs face in the classroom (i.e., learning content while simultaneously interacting with a sociocultural context with which they are not familiar). However, Krashen (2013) and Sparks (2016) posit that there is a struggle with SIOP® that gets ignored in professional development situations. Although SIOP® has been validated, the struggle comes with determining if the protocol follows a skill-building hypothesis, a comprehension hypothesis, or a mixed bag of both.

Disadvantages. The SIOP® model also has its drawbacks. One is a lack of focus on content including pedagogical attainment necessary for the professional development of teachers (McIntyre et al., 2010). Modifying it to focus on content is vital to professional development success. Further, implementing a context for learning in teacher development as they in turn respond to the needs of ELs in the content classroom is crucial.

Although SIOP® has been researched and validated, the measure of validity is based largely on the judgments of the founding authors (Krashen, 2013). In addition, it has not been validated in an online format. While the founding authors have indeed critiqued their work, they fail to acknowledge that the studies done on SIOP® "show no meaningful effects…and did not reach statistical significance" (Sparks, 2016, p. 2). Further, McIntyre, Kyle, Chen, Muñoz and Beldon (2010) found no significant difference in reading achievement among students with teachers who fully implemented the

protocol. In order to obtain positive effects, critics suggest that the strategy should not be situated in all circumstances or contexts involving EL instruction (Crawford, Adelman Reyes, & Scully, 2016; Killen, 2006). In fact, deciding whether or not skill building (dependence on consciously learning skills such as grammar) or comprehension (dependence on subconsciously learning such as through watching TV) is how language is acquired (Krashen, 2013) should be meted out. Crawford et al. (2016) stated that the "engage framework" may be more useful as it encourages improvisation and does not exclude other methodologies. The Engage Framework (proposed by the co-author of *The Trouble with SIOP®)* is a constructivist approach designed to help teachers develop imaginative ways to engage students academically while they are acquiring English and does not micromanage the teaching like SIOP® does. SIOP® has potential to inform EL teachers' practice as one tool but not as a prescriptive tool that dissuades spontaneity and discovery.

Professional Development in KPS

As a response to ELs being returned back to their base schools, professional development for ESOL teachers became a strategy for increasing EL achievement. The district, however, recognized that the system was not able to keep up with the rising numbers of ELs, and like national results, determined they were "unable to fulfill the obligation to provide equitable education for all students" (Molle, 2013, p. 102). A large number of content teachers come in contact with the linguistic minority students because of inclusion practices in content classrooms being preferable and cheaper than pullout services. In contrast, professional development for content teachers did not readily occur in the district. This may be due to content teachers' perception that professional

development is a remedial activity. However, largely it can be attributed to the district being ill prepared to receive the influx of ELs (Elementary ESOL Instructional Specialist, personal communication, December 2, 2015) that include inadequate resources and competing demands of teaching goals, curriculum strategies, and unfair budgetary limitations (González & Darling-Hammond, 1997). As a result, the eventuality of budgetary allocation restraints made it prudent for the district to respond with EL plans that sustain the growing population.

According to the Elementary ESOL Instructional Specialist for KPS (personal communication, December 2, 2015), there was a missed opportunity for professional development for content teachers during the time when the (ESOL) sites were decentralized. The district underestimated the effect that the huge influx would have on, particularly, the elementary school. Further, the ESOL Department's staffing allotment cannot keep up with the needs of the 125 elementary schools, and thus, they are only able to provide professional development to the content teachers absent support from the Professional Development Team (PDT).

Professional development for new ESOL teachers is provided each year on the current reading series used in the content classroom. Once the state joined WIDA, the ESOL teachers were provided professional development on the nuances involved in being part of the consortium. The second year, ESOL teachers were trained on developing WIDA-aligned lesson plans. The professional development opportunities repeat each year but are optional for experienced ESOL teachers. District assessment data from WIDA's ACCESS reveal that of all the schools with ELs in the district, 54% met AMAO I indicating ELs are making progress in learning English, while 14.65% met the

AMAO II indicating the percentage of students who attained English proficiency in the last assessment (Maryland Report Card, 2017) was somewhat of a challenge. With this data, the district did not meet the state targets of 57% and 15%, respectively. Disaggregated data suggests that the writing component presents the most challenge.

Content teachers have largely been neglected until 2010 when the ESOL Office (in conjunction with OTD) started to make changes to the professional development programs. Continuing Professional Development (CPD) courses are available for credit either face-to-face or online. Common topics include SIOP®, Second Language Acquisition, EL Strategies, Working with ELs in Math, and Elementary and Secondary Reading. Currently, the district is waiting on approval from MSDE to offer a new CPD that will target professional learning for teachers who encounter ELs with Individual Education Plans (IEPs; Elementary ESOL Instructional Specialist, personal communication, December 2, 2015).

The mission of OTD is to provide guidance, consultation, and logistical support for internal, intra-office, and system-wide professional learning opportunities (Kerby Public Schools [KPS], 2017). These efforts often link to coordination with outside partnerships, residencies and pipelines with accredited universities such as the University of Maryland (UMD) and George Washington University (GWU; Elementary ESOL Instructional Specialist, personal communication, June 27, 2017). The partnership with UMD has garnered a 5-year opportunity for content-teachers to participate in a 12-credit TESOL graduate certificate program, resulting in ESOL certification. Additionally, master's programs and coursework are offered in conjunction with UMD. The master's program targets content teachers and ESOL teachers without master's degrees.

Coursework programs target elementary teachers with a focus on math and language

pedagogy. Plans for a similar program are underway for similar coursework targeted for

middle school teachers (Elementary ESOL Instructional Specialist, personal

communication, June 27, 2017). With GWU, 6 cohorts of teachers have taken the

program "Promoting Equity for Early Childhood Educators." Participants received a

certificate upon completion and a scholarship if they chose to continue study in the

TESOL master's program. Both the UMD and GWU programs are conducted mainly

face-to-face during the summer months with asynchronous sessions during the school

year.

Additionally, OTD, International Student Guidance Office (ISGO), and the ESOL

Office have partnered to conduct professional development throughout the school year

centered on cross-cultural communication, differentiation of instruction, modifying

materials, and promoting cultural awareness and sensitivity. The various pathways to

professional development are efforts to prepare non-ESOL teachers to work with ELs

across the curriculum (ESOL Instructional Supervisor, personal communication, June 28,

2017).

Furthermore, the ESOL Department's Google Site has links to pre-recorded

videos that are available to all teachers (Elementary ESOL Instructional Specialist,

personal communication, December 2, 2015). Topics range from WIDA ELD to Using

Technology with ELs. Additionally, the district offered seven professional development

opportunities to content teachers during the summer 2017 and six for fall 2017. Sample

course offerings available include the following: Teaching Reading and Writing to ELL

Students, Strategies for Teaching ELLs Across the Content Areas, Second Language

Acquisition/Culture, Early Childhood Literacy/Pre-K Focus, and Teaching ELLs in the Mathematics Classroom. Continuing into winter 2018, courses will include a technology focus group and sessions specific to administrators in a face-to-face format. However, the transition to short-term webinar sessions and long-term online cohorts is becoming more of the norm.

SIOP® Professional Development in KPS. Research studies point to the effectiveness of the SIOP® protocol. Having teachers to understand the language development process of ELs is helpful and holds teachers accountable to student achievement. If implemented with fidelity, it makes clear to teachers that ELs can do more than originally thought. Despite the gaps in research, the SIOP® model has been adopted by the KPS district as part of the professional development series for content area teachers who teach ELs. As the district's Elementary Instructional Specialist states, the model was chosen due to its extensive research with documented support for improving EL student achievement. Similarly, SIOP®, as a sheltered instruction model, provides a framework that connects to the district's Strategic Plan, inclusive of the focus on literacy instruction (ESOL Instructional Supervisor, personal communication, September 26, 2016). Central to this is that the model is inclusive of the district's Literacy Plan's two main foci: speaking and listening, and reasoning.

The KPS ESOL Office began concentrating on SIOP® as a major professional development opportunity for content area teachers due to the model's focus on lesson preparation including writing both content and language objectives as well as the emphasis on literacy instruction across content. SIOP® lesson preparation components

correspond with the lesson preparation template for the district. A crosswalk of the five

lesson preparation components and the template can be seen in Table 1.

Table 1

KPS Lesson Preparation Template Aligned to SIOP®

KPS	SIOP®
LESSON OBJECTIVE(S) / OUTCOMES Objective(s) must be specific, measurable, rigorous, stated as a learning outcome, and in KPS format.	Feature 1: Content Objectives ~ Identifies what students should know and be able to do at the end of the lesson and leads to assessment Feature 2: Language Objectives ~ Specifically outlines the type of language that students will need to learn and use in order to accomplish the goals of the lesson.
VALUE, SEQUENCE, AND ALIGNMENT/BALANCE Students must be able to build their understanding of important ideas from concept to concept.	Feature 3: Content Concepts ~ Appropriate for age and educational background level of students
MATERIALS AND/OR TECHNOLOGY RESOURCES (AS NEEDED) Materials that are necessary for the lesson; resources that will enhance instruction.	Feature 4: Supplementary Materials ~ Makes the lesson clear and meaningful
SUITABILITY FOR DIVERSE LEARNERS	Feature 5: Adaptation of Content ~ To all levels of student proficiency
VALUE, SEQUENCE, AND ALIGNMENT/BALANCE Students must be able to build their understanding of important ideas from concept to concept.	Feature 6: Meaningful Activities ~ Integrate lesson concepts with language practice opportunities for reading, writing, listening, and/or speaking

Since KPS started offering SIOP® professional development in 2008, 45 groups

of face-to-face sessions have been offered with a total of 1,858 participants completing

the one-time session. These sessions were offered lecture-style with no follow-up

(Elementary Instructional Specialist, personal communication, August 10, 2017). Target

audiences for the sessions included those who had previous experience with or wanted

enrichment in SIOP®, ESOL teachers, and administrators of schools with high ESOL

populations. While the one-time session is not optimal for the in-depth learning of

SIOP®, additional complications came about when principals complained of teachers

being pulled from class to participate and, also, the lack of funding for substitutes to

cover the classes. In response to this complication, the district looked at how online learning might supplant the learning as a potential benefit. Another benefit anticipated was that SIOP® could be offered in a cohort format with support from the sponsor (Pearson) and authors. With more than one session, participants would now have the opportunity to engage more in the course content, interact with field experts and colleagues, and apply the learning immediately with opportunity for reflection and change. In addition, participants could earn two CPDs toward MSDE certification.

Pearson Education SIOP® Professional Development. Since 2010, SIOP® Virtual Learning, in conjunction with Pearson, has been offered in the district and 423 teachers have completed the course in 38 cohorts. Six cohorts were offered for the 2016-2017 school year with 66 teachers completing the course. Six cohorts will be offered for the 2017-2018 school year. Within the period of 2013-2016 (the last 4 cohorts), 348 teachers have completed the SIOP® Virtual Learning. Despite its shortcomings, KPS views SIOP® as a viable model for all teachers to use in being able to address the academic and language needs of ELs across the curriculum.

Pearson Education (2018) has developed a SIOP® professional development program in conjunction with the main researchers (Echevarría, Vogt, & Short, 2017). KPS uses the curriculum as an online professional development opportunity for content educators. Table 2 outlines how the 11-session online learning aligns with the eight SIOP® components. The live sessions involve a one-hour synchronous session where the Pearson instructor facilitates discussion of the topics. The other sessions are asynchronous, and the participants are expected to complete a series of assignments, collaborate, discuss, and share information with others in the cohort.

Table 2

11-Session Online Learning Alignment with the Eight SIOP® Components

Session	Component Discovery
1 Live	Discussion of Language Acquisition
2	Introduction to SIOP®
3	SIOP® Component 1 ~ Lesson Preparation
4	SIOP® Components 2, 3 ~ Building Background and Comprehensible Input
5 Live	Discussion of SIOP® Components 1-3
6	SIOP® Component 4 ~ Strategies
7	SIOP® Component 5 ~ Interaction
8 Live	Question and Answer with the Author including SIOP® Components 1-5
9	SIOP® Component 6 ~ Practice and Application
10	SIOP® Component 7, 8 ~ Lesson Delivery and Review and Assessment
11 Live	Discussion: Putting it all together

According to the main researchers (Echevarría, Vogt, & Short, 2017), if SIOP® is implemented to a high degree and with fidelity, the results are proven. The results are guaranteed to (a) increase student achievement, (b) improve academic content and language skills, (c) deliver results aligned to district standards, and (d) prepare students to be college and career ready.

SIOP® is considered to be what good teachers do naturally. Echevarría (2015), commented, "We have many schools that use the SIOP® model for all students. But, there are features that are absolutely critical for English learners" (p. 3). The critical features often avoided in content area classrooms deal with higher-level skills involving summarizing, understanding expository prose, evaluating, and drawing conclusions (Cummins, 2013). These skills are transferable across the curriculum.

Further research calls for a determination of which modality is best for in-service teachers to engage in the SIOP® learning. Traditional models of the professional development being conducted experientially on-site (without a coaching component) is often the relied upon method of delivery. According to Darling-Hammond (1998), "teachers learn best by studying…by collaborating with other teachers, by looking

closely at students and their work, and by sharing what they see" (p. 8). Therefore, experiential professional development engages teachers in actual teaching, assessment, and observation; is collaborative through sharing knowledge among peers; is intensive through developing, modeling, and coaching; and is grounded in research. This is what the SIOP® researchers refer to as sustained collaborative inquiry evident in the coaching component.

>   ***Online SIOP®.*** On-line professional learning is becoming more common. Professional communities such as the Association for Supervision and Curriculum Development (ASCD) and Pearson Education offer coursework tailored to the content learning needs of in-service teachers. ASCD (2017) says that connecting coursework material to practical, real-world experiences helps the learner to invest in the learning although in a virtual situation. Pearson (2018) suggests that offering online courses such as SIOP®, enables more educators to be reached, have their capacity built, and apply the learning over-time with progress monitoring and virtual collaboration with peers. An advantage to taking this course in an online situation is that it gives the educator opportunities to reflect upon and practice the new learning, self-assess, view the components of SIOP® through videos, and immediately apply what they learn concurrently. SIOP® is found to be most effective as a sheltered model for ELs because it does not follow what the National Commission on Teaching and America's Future (1996) report as mass-produced sheltered instruction workshops that do not focus on helping teachers with the pressing challenge of responding to student diversity in ELs.

>   Offering SIOP® online for professional development also has a downside. With any online class, why the person is taking the course could have bearing on the educator's

engagement in the coursework. Therefore, the degree to which they commit and implement the learning may not have the same accountability as when taking a face-to-face course. The educators need to deal with the demands of the intense coursework, the potential lapse time of feedback, the isolation of not having peers with which to interact, and conversely, coordinating group activities may discourage completion of the course. Lastly, the coaching component found in the face-to-face format does not traditionally occur in the online version. However, teachers who choose to take the Pearson Education product's Institute II have access to the coaching component. Other teachers would have to be motivated to seek out coaching in job-embedded situations.

Summary and Purpose of the Study

Given that ELs make up such a large percentage of the student population in KPS and are continuing to expand, it is necessary for content teachers to receive professional development in teaching ELs if the students are going to be college and career ready upon graduation. The SIOP® model has been proven to be effective with ELs. What makes SIOP® an essential professional development offering for KPS is that the methods align with WIDA, the techniques can be modified based on student assessment, and it allows students to learn academic language at the same time as learning content (ESOL Instructional Supervisor, personal communication, September 29, 2016). The first component, lesson preparation, compels the teacher to really consider the six features of a lesson plan as outlined through SIOP®:

1. Content Objectives;

2. Language Objectives;

3. Content Concepts;

4. Supplementary Materials;

5. Adaptation of Content; and

6. Meaningful Activities.

In addition, SIOP® components two through eight are necessary for teachers to take into consideration as they are preparing their lessons and thinking about application in the classroom. According to Echevarría (2012), what the teacher does specifically to prepare for ELs propels them (the students) toward achievement. Lastly, the protocol is a Pearson Education product, which is affiliated with *Reading Street* (one of the reading texts in KPS that align with the CCSS).

Providing professional development on SIOP® through online courses that build the skills of a large numbers of teachers has the potential to be a best practice for districts like KPS with large percentages of ELs. Although professional development for content area teachers has been largely left out of the ESSA (ESSA, 2015; TESOL, 2015), KPS recognizes that all teachers require the professional training in order to meet the challenge of academic excellence for all students and a high performing work force (Strategic Plan, 2015). Therefore, the purpose of this study was to examine content area non-ESOL elementary teachers' perceptions of the online SIOP® professional development. Two areas of perception were studied. The first considered the implementation of the six features of lesson preparation identified in SIOP®. The second area of perception considered how content teachers apply the eight components of SIOP® within the lesson preparation. Additionally, insight into whether teachers perceived that the SIOP® professional development positively affected their instruction was explored.

Chapter 2: Study Design

Purpose Statement

English learners participate in language assistance programs to help them gain English proficiency but also meet the academic standards that all students are expected to attain. As such, content teachers play a pivotal role in underscoring ELs' academic growth.

One instructional model found to be effective in teaching ELs in the content classroom is SIOP® (Center for Applied Linguistics [CAL], 2017). Many universities, professional organizations, and school districts, including KPS, are offering the online SIOP® training as part of their professional learning series. For a content teacher interested in learning systematic methods of instructing ELs, this online professional learning opportunity is attractive and is also becoming commonplace. However, to date there is limited research on how teachers perceive the online SIOP® training, specifically their perceptions of the ways in which the training has influenced their lesson preparation and their teaching of ELs. Therefore, the purpose of this study is to examine non-ESOL elementary teachers' perceptions of the online SIOP® professional development regarding implementing the six features of lesson preparation and applying the eight components of SIOP® within the lesson preparation. Insight into whether teachers perceived that the SIOP® professional development positively affected their instruction is explored.

This section presents the research questions, study participants, study design, survey instrument and procedures, and plans used for analysis.

Research Questions

There are three research questions in the present study:

1. To what extent do elementary non-ESOL teachers of ELs report that they implement the key components of lesson preparation from the SIOP® Online Professional Development?

2. To what extent do the teachers report that they have applied the eight components of SIOP® in their instruction of ELs in content areas?

3. In what ways has the SIOP® professional development had a positive effect on your instruction with ELs?"

Study Design and Methods

The study was descriptive and utilized a survey to obtain information from the participants. According to Gay, Mills, and Airasian (2015), descriptive research compares how sub-groups view a particular topic. Therefore, descriptive analysis was best suited for this research since the aim was not to determine a causal relationship between the online professional development and specific content learned or teaching practices. Instead, the aim was to describe the teachers' perceptions of taking the online course and how the course content influenced their teaching.

An electronic survey was chosen as the data-collection tool. In this study, using a survey was advantageous for several reasons. The first reason is that it provided precise results to describe the participants' perceptions of the work they put into lesson preparation using SIOP® and its components. Secondly, as Gay et al. (2015) and Creswell and Poth (2017) suggested, surveys are effective at describing the condition of a situation (i.e., the status of how content teachers plan to teach ELs in their classroom).

45

While there are advantages to using a survey, there are also disadvantages. Disadvantages include researcher error or bias when developing the survey, the researcher not anticipating all possible responses, unverified email addresses, and survey fatigue whereby the respondent may not be motivated to respond (Schonlau, Fricker, & Elliot, 2002). However, the researcher determined that the advantages outweighed the disadvantages, and the survey as the data collection tool was selected.

A survey was used to enable the respondents to self-report their perspectives on the SIOP® training in a direct format. The survey was designed using a Likert scale with structured, closed-end questions. One open-ended question regarding barriers to implementation was asked at the end of the survey. The reasoning behind using a survey was twofold: (a) the ease with which it could reach a broad audience, and (b) to reduce the time participants would need to take part in the study (Gay et al., 2015; Schonlau et al., 2002). In order to establish reliability, the survey was piloted with an ESOL Teacher and Elementary ESOL Instructional Specialist to gather information about potential deficiencies in the instrument.

Participants. All non-ESOL elementary KPS content teachers who completed the SIOP® online professional development within the last 4 years (2013-2016) were recruited to participate in the survey; prior to 2013, most participants were ESOL teachers who had previous exposure to methodologies in teaching ELs, including SIOP®. To avoid biasing the data with teachers who had had previous training in SIOP® through their formal teacher education programs, ESOL teachers were not asked to participate in the survey. Eliminating ESOL teachers reduced the potential respondent pool to 152 elementary content teachers. Additionally, the rationale behind not including participants

after 2016 was because these teachers would not have had a full school year to implement and apply SIOP® nor be able to remark about students' academic or language improvement.

The intent of the study was to capture the content teachers' perspectives without them having previous exposure to SIOP®. Specifically, their interactions with how the SIOP® lesson preparation features influenced their teaching of ELs in the content classroom was a focus. Also, the research focused on the online version of the course offered through the district. The elementary level was chosen because of the strong district focus on literacy, particularly with the Balanced Literacy (Strategic Plan, 2015) initiative in the elementary grades. Table 2 shows a crosswalk of how the protocol aligns with district lesson preparation. In addition, the national, state, and district data for reading in the elementary grades shows a disparity in ELs' reading achievement as compared to native speakers.

Survey instrument. The study utilized an anonymous web-based survey to obtain information regarding the teachers' implementation, application, and perceptions. The survey, which is in Appendix A, consisted of 20 questions. The framework for the survey questions were the three research questions and focused on obtaining content teachers' level of implementation as identified during lesson preparation, application in the lesson preparation template, and perceptions regarding participating in SIOP® in an online format. The first set of questions was designed to gauge implementation of the six SIOP® components of lesson preparation while the second set determined application of the eight components of SIOP® as outlined in the lesson preparation design. One question asked the teacher to report if the professional development had a positive effect

on their instruction with ELs (i.e., strategies, tools, and methods). The final question asked about barriers to implementing SIOP® in the classroom.

The focus on lesson preparation is because *Making Content Comprehensible for English Learners: The SIOP Model (5th ed.) with Enhanced Pearson eText* (Echevarría et al., 2017) identified lesson preparation as the foundation of student achievement and involves what the teacher does specifically to plan for student learning including setting objectives, incorporating supplements, and adapting materials for the ELs in the classroom (Echevarría, 2012). In addition, to help frame the findings, five background questions asked the reason for taking the SIOP® online training and format preference. The first question asked the percentages of ELs the participant had in class within the past 4 years. The next two questions asked the reason for taking the course and the reason for taking the course online. The multiple-choice responses were: (a) certification renewal, (b) professional growth, and (c) other. For the next question, the multiple-choice responses were (a) convenience, (b) self-pace, and (c) other. The last question determined whether or not the participant preferred to take the course face-to-face with responses to continue to the next question if yes or skip to the next question if no. If the respondent responded yes, he/she had the option of checking all that apply: (a) location, (b) convenience, (c) cost, and (d) pace.

The responses to the three research questions were measured on a 4-point Likert scale. This type of scale was used to uncover varying degrees of opinion. In addition, rating scales are most useful when participants are asked to provide their perceptions (Wiersma & Jurs, 2005). Six implementation questions of the six features of lesson preparation were asked on a Likert scale with *always/daily*, *often/once a week*,

seldom/once a month, and *never* as multiple-choice responses. Seven application

questions of the eight components of SIOP® included in lesson preparation followed the

same Likert format. The perception question determined whether or not the teacher

perceived that his/her instruction was positively affected by engaging in the SIOP®

professional development. The respondents chose all that apply from 10 pre-selected,

drop-down responses that align with best practices of SIOP® instruction. One optional,

open-ended question asked about barriers in implementing SIOP®. If the participant did

not respond to the question, his/her (other) answers still became part of the aggregate. All

of the survey questions were perception, self-judgment based. The final question was

optional, where the responder chose to input his/her email address for the random

incentive drawing.

Qualtrics was used to create the survey and generate reports from the participants'

responses. The web-based survey was available to those who had access to the link, and

all responses were password protected. The main goal of descriptive research is to

capture responses and analyze them according to the aggregate. Qualtrics reported the

number of responses, percentage of responses, and aided in statistical analyses necessary

for this goal to be accomplished. For this study, the basic multiple-choice format was

used to support the Likert question type. In addition, the drop-down feature was used to

support the background questions. A small, open space box was used to encourage

completion of the open-ended question.

Prior to commencing the survey, a pilot was conducted. According to a Qualtrics

blog by Vannette (2015), it was suggested that checks for potential problems in the

survey instrument ensure that survey results provide valuable insight into the data. A

strategy to this pilot was to elicit "expert evaluation" or experts in the field. Current ESOL Teacher and Elementary ESOL Instructional Specialists have intimate knowledge of SIOP® and, therefore, helped shape the survey and, thereby, inform the survey quality. They specifically offered feedback on wording, ordering of questions, and accuracy of the SIOP® component statements.

Procedures. The suggested steps involved in the Qualtrics (2017) process were followed including design, distribution, and reporting. The first step was to input the questions and response options into Qualtrics. The next step was to customize the survey into the four sections (i.e., background, implementation, application, perception and barrier). The last (optional) question asked for the participant's email address to be used in determining who won the incentive.

The survey was sent to the participants at the end of November 2017 and remained open for one week. During the initial week, just 12 responses were received. The follow-up email was sent at the beginning of December 2017 and garnered 40 more responses for a total of 52 responses. This represents 34% of the total participants eligible to complete the survey. However, of these responses just 36 (24%) completed the survey in its entirety. Individuals who responded within the first week and who chose to send their email address were entered into a drawing for a $25 Amazon Gift card. The first person to respond to the survey received the gift card.

Data Analysis

Data analysis relied on the assumption that the respondents were forthcoming in their answers. The data analysis section was organized in consecutive order according to the three research questions that guided the study. Each participant's responses were

captured and mixed with others in order to identify response frequency. The data gathered was analyzed by a third-party statistician using SPSS and reported in the aggregate. Tables were created to depict the major categories and the associated concepts that emerged through the surveys.

Confidentiality and Protection of Human Subjects

Institutional Review Board (IRB) approval was obtained from both the university and the district. The study posed minimal to no risk as it was entirely voluntary and all responses were anonymous. All data was analyzed and reported in the aggregate. No individual identifying information was obtained; however, the respondents were asked to put their email address at the end if they wanted to be considered for the gift card drawing. Data was downloaded from Qualtrics and maintained in a password-protected computer.

Limitations. Due to the relatively small sampling of teachers and the self-reporting survey as the only form of data collection, the accuracy of the teachers' perceptions was limited. Other factors were that it was assumed that responses were genuine as it related to taking the SIOP® course online and its effect on the teacher's own classroom instruction, specifically lesson preparation. Additionally, since the sample population will be representative of four years' worth of participants, changes in school assignments, increase in ELs in the classroom, or change in leadership expectations most probably affected their perceptions.

Chapter 3: Results and Conclusions

The purpose of this study was to examine non-ESOL elementary content area teachers' perceptions of the online SIOP® professional development course regarding implementing the six features of lesson preparation and applying the eight components of SIOP® within their lesson preparation. The study was guided by three research questions and an online survey to obtain information from the teachers regarding their implementation of the key SIOP® components in lesson preparation, application of the eight SIOP® components, and potential ways that SIOP® had had a positive effect on instructing ELs. In this section, the results from the survey data, a discussion of the research questions, conclusions that connect the current study to the larger literature, and implications for the school district are presented.

Survey Results

Return rate and background. A total of 36 teachers completed the online survey. This represented a 24% rate of return. Table 3 presents information regarding the proportion of their students who are ELs and their reasons for taking the SIOP® course.

Table 3

Sample Description

Questions	Frequency	Percent
Q1 During the past 4 years, what proportion of students' (total) in your classes have been English Learners (ELs)		
Less than 10%	8	22.2
10% to 25%	3	8.3
25% to 50%	9	25.0
over half	16	44.4
Q2 What was your *primary* reason for taking the SIOP® course?		
Certification	9	25.0
Professional Growth	34	94.4
Other	2	5.6
Q3 Why did you take the on-line SIOP® course rather than the face-to-face course?		
Convenience	25	69.4
Self-paced	19	52.8

Questions	Frequency	Percent
Other	4	11.1
Q4 Would you have preferred to take the course face-to-face?		
Yes	16	44.4
No	20	55.6
Total	36	100.0
Q5 If yes, why didn't you?		
Schedule (semester) was not convenient	9	56.3
Schedule (number of sessions) was not convenient	2	12.5
Location was not convenient	12	75.0
Cost	3	18.8

As shown, over 40% (*n*=16) of the respondents reported that over half of their students are ELs. Ninety-four percent (*n*=34) said they took the course for professional growth, which points to a need of the teachers seeking additional professional knowledge in instructing this population. The most common reasons given for why they took the course online were for convenience (69.4%, *n*=25) and because the course was self-paced (52.8%, *n*=19). Over 40% *(n*=16) said they would have taken the course face-to-face; the most common reasons given for why they didn't take the face-to-face course were that the semester schedule was not convenient (56.3%, *n*=9) and that the location was not convenient (75%, *n*=12).

Results for Each Research Question

In the following section, the results of each research question are discussed.

Research Question 1. Six survey questions addressed the first research question: "To what extent do teachers of ELs in content classrooms report that they implement the key components of lesson preparation from the SIOP® Online Professional Development?" Table 4 provides means and standard deviations for the individual responses and an overall mean across all six questions.

Table 4

Teachers Use of the Key Components Of SIOP® Lesson Preparation

Estimate how often you do the following when you prepare lessons that include EL students:	Mean	SD
Q6 Write content objectives	3.33	0.79
Q7 Write language objectives	3.00	0.86
Q8 Consider the proficiency level of the EL students?	3.42	0.81
Q9 Include supplementary aids to promote content concepts (i.e., charts, pictures, multimedia)?	3.58	0.69
Q10 Adapt the content to the language proficiency level of the EL students?	3.47	0.65
Q11 Integrate activities that involve practice in listening and speaking (i.e., Accountable Talk)?	3.61	0.49
Overall Lesson Preparation	3.40	0.45

Based on the overall mean, the teachers reported implementing the elements of

SIOP® lesson preparation always (a 4 on the *Likert* scale) or almost always (a 3 on the

Likert scale; *M* = 3.40), which suggests that teachers think about ELs when planning

lessons. The two elements they reported implementing most often were using

supplementary aids to promote content concepts and integrating activities that involve

practice in listening and speaking. Using supplementary aids (i.e., technology, models,

graphics or other visual aids that support metacognition) received the highest response of

the key components in lesson preparation. Twenty-five (69%) responders indicated that

they always/daily, and another seven (19%) responded that they mostly/weekly use

supplementary aids. In two places in KPS's reading lesson plan template, teachers are

directed to plan for ELs: materials/technology resources and suitability for diverse

learners. Both of these areas require the teacher to think about how they will make the

lesson clear and comprehensible (Echevarría & Short, 2010) for ELs.

Writing language objectives received the lowest response of the key components. Twelve (33%) participants responded that they always/daily consider language objectives. This is probably linked to KPS's reading lesson plan template that does not specifically require a language objective although it does ask the teacher to identify strategies/skills from the standards that will be taught. Language is listed as a strand to consider. Additionally, according to Short and Echevarría (2004), "Although most teachers address content objectives in their lessons, they rarely discuss language objectives (p. 3)" which is crucial to ELs' language development.

Research Question 2. Seven survey questions addressed the second research question: "To what extent do the teachers report that they have applied the eight components of SIOP® in their instruction of ELs in content areas?" Table 5 provides means and standard deviations for the individual responses and an overall mean across all seven questions. Based on the overall mean, the teachers reported applying the eight components of SIOP® in their instruction of ELs in content areas always or almost always ($M = 3.36$). The three components they reported applying most often were building EL students' backgrounds (26 or 72% of the teachers), using scaffolding strategies when teaching reading lessons to EL students (24 or 67% of the teachers), and allowing EL students to collaborate with their peers (27 or 75% of the teachers).

Table 5

Teachers Applying the Eight Components of SIOP® in their Instruction

Indicate how often you do the following when you implement your lesson plans in classes that include EL students	Mean	SD
Q12 Apply SIOP® lesson preparation components to your reading lesson plans	2.94	0.75
Q13 Build EL students' backgrounds (i.e., make connections to the learning)	3.64	0.64

Q14 Consider comprehensible input (i.e., rate of speak or hand gestures) when you are in front of the EL students in your classroom?	3.31	0.86
Q15 Use scaffolding strategies when teaching reading lessons to EL students?	3.67	0.48
Q16 Allow EL students to collaborate with their peers through content and interact with content while speaking and listening?	3.69	0.58
Q17 Conduct formative assessments?	3.06	0.63
Q18 Adjust your pace after you've made a formative assessment?	3.22	0.68
Overall Components Applied	3.36	0.41

Building students' background knowledge connects the new content to prior experiences (Kareva & Echevarría, 2013). This helps frame the lesson for the teacher. The teacher can use the information to clarify misinformation, fill in the gaps of a concept, or determine what ELs can bring into the lesson. Using scaffolding strategies (i.e., providing support) across the content classrooms is paramount to ELs academic and language development. SIOP® points to this strategy as necessary for teachers to use as they assist ELs in mastering skills and using the skills to access learning in other content areas. KPS's district-wide Literacy Plan focuses on Speaking and Listening and Reasoning. Allowing ELs to collaborate with their peers increases the likelihood of their participating in tasks that require them to listen to and hear academic language. As August (2006a) points out, oral language development, including collaborative interactions, are especially important since language proficiency impacts all aspects of educational achievement across contents.

Research Question 3. The online survey asked the third research question directly: "In what ways has the SIOP® professional development had a positive effect on your instruction with ELs?" Each of the 36 respondents checked one of the 10 possible

responses to this question. Frequencies and percentages are presented in Table 6, ordered

from the most to the least frequent responses.

Table 6

Positive Effect of SIOP® Professional Development on Instruction with ELs

Response options		Frequency	Percent
I use multimedia sources more often		7	19.4%
I emphasize vocabulary using tools such as word banks		5	13.9%
I make sentence stems available to assist with writing		5	13.9%
I pre-teach key vocabulary		4	11.1%
I adjust my rate of speech		3	8.3%
I use cooperative learning frequently		3	8.3%
I use simple graphic organizers to scaffold reading		3	8.3%
I revise the lesson based on formative assessment		3	8.3%
I pre-plan the higher order questions that I ask		2	5.6%
I re-teach based on summative assessment		1	2.8%
	TOTAL	36	100.0%

The most common option, checked by seven (19.4%) of the teachers, was, "I use

multimedia sources more often." A pattern determined in these responses found that the

question regarding supplementary aids (Question 9) corresponds to this feedback. The

next most common option checked by five (13.9%) teachers was, "I emphasize

vocabulary using tools such as word banks" and "I make sentence stems available to

assist with writing". Both of these responses correspond to language development found

in Questions 7 and 13. Additionally, words banks and sentence stems are also a form of

supplementary aids.

The least common option checked by one (2.8%) of the teachers was, "I reteach

based on summative assessment." Although teachers frequently give formative

assessment, for ELs the summative assessment is the WIDA given mid-year. The results

of the WIDA are reported in the following school year.

A final survey item requested open-ended responses to the question, "What barriers have you faced in implementing SIOP® in your classes?" A content analysis was conducted to summarize the comments provided by the 15 teachers who responded. Frequencies and percentages are shown in Table 7. The response given most often was that teachers felt there was not enough time to plan the materials and visuals. Other barriers mentioned had to do with lack of resources available from the school, lack of support from co-teachers, and the fact that teachers had to instruct students with many differing abilities and language proficiencies.

Table 7

Barriers to Implementing SIOP®

Barriers	Frequency	Percent
Lack of time	9	60.0%
Lack of resources	2	13.3%
Lack of support	3	20.0%
Students' differing proficiencies	5	33.3%

Discussion

Despite the low response rate, the study has promise for future research. First, the study presented on a professional development topic that has not been studied in the district. Also SIOP® as an online professional development tool has the potential to reach a growing audience of content teachers who require best practices and sound approaches to teaching ELs in their classrooms.

Content teachers are responsible for providing instructional and linguistic instruction to ELs in the content classroom. Appropriate professional development for content teachers lags behind their needs (Standards for Professional Learning, 2011) as

58

the EL population rapidly grows. A comprehensive professional development program has the following components: (a) is active and reflective, (b) is a validated intervention plan grounded in theory, and (c) integrates theory and practice. Fullan's (2013) change perspective fits into this concept. Content teachers need experience in building their own professional knowledge in order to help ELs develop their skills and competencies. Before content teachers can effectively teach ELs, their toolkit for integrating content with language demands should be filled with professional development opportunities that focus on strategy, methods, and cultural awareness (McGraner et al., 2009).

Online teacher professional development is an optimal approach for school districts to use. Online situations are scalable to large audiences whereby teachers can self-pace, leverage other colleagues' experience, and apply what they learn *in situ*. As an alternative to gaining professional learning, online professional development is becoming commonplace (Chen et. al, 2009), whereby teachers participate in an engaging opportunity that challenges them to learn new material in an authentic way.

SIOP® as an online professional development opportunity has been proven to be an effective model for lesson planning and lesson delivery. Research (CAL, 2016) points to the effectiveness of the model in addressing the academic and linguistic needs of ELs. This research found that the content teachers in KPS who took the SIOP® course online perceived the professional learning experience to be useful in lesson preparation and the application of the components. Although the most common barrier to applying the learning was having adequate time to plan and apply SIOP®, the surveyed teachers indicated that the most common reason for taking the course is to improve professional

learning. This is an indication that the interest in seeking effective ways to help ELs succeed in the content classroom is paramount for their professional toolkit.

Limitations

The limitations of the survey were its lack of a large response pool ($n = 152$) and the low response rate ($n = 36$). Since there was only a 24% response rate, generalizing perceptions across the aggregate was difficult. In addition, the confidentiality feature imposed by KPS made it difficult for the researcher to encourage more participation. This descriptive study was baseline and unable to be compared to others' who had taken the SIOP® online or face-to-face.

Another limitation is that the survey was developed by the researcher and was the only measure of the teacher's perceptions. It is possible that interviews or reviewing lesson plans could have served as an objective measure to gauge teacher perceptions of SIOP® and implementing the protocol within their planning and preparation. Lastly, since SIOP® does have a coaching component, the survey neglected to ask if the participants had experience with this component after taking the course online.

Implications and Recommendations

The purpose of this study was to examine non-ESOL elementary teachers' perceptions of the online SIOP® professional development. Despite the limitations, the study points to the potential promise of SIOP® online professional development. In a greater realm, the study provides implications for overall further study as the numbers of ELs continue to grow in U.S schools. The following are further considerations:

- The SIOP® model can be offered in vast program designs based on the versatility with which the program is laid out. Therefore, how, specifically,

the quality, relevance, and impact of the SIOP® professional learning gets tailored to individual districts will need to be considered.

- Pre-service teachers should understand how to support ELs in the classroom. Collaboration with higher education institutions will position pre-service teachers to better meet ELs' needs in the classroom.

The district's EL population continues to grow and it is incumbent on the district to provide in-service elementary content teachers with the strategies to teach the population *in situ*. This descriptive research provides a starting point for the district to consider continuing the SIOP® online professional development as the method by which elementary content teachers are trained in a more scalable way. Therefore, implications for the district are outlined below:

- As the district continues to teach ELs, careful consideration into how the elementary content teachers are trained would need to be considered. This includes a clear definition of content teacher, which the researcher realized was not clearly defined even at the state level.

- Another implication is to determine the feasibility and accountability of taking the online SIOP® professional development and what that would look like in a large district.

While 25% of public school students are expected to be ELs by 2025, the conversation shift of how to satisfactorily teach ELs in the content classroom sparks the need for further attention by district leaders and others interested in offering SIOP® as an online professional development opportunity. Recommendations and potential questions for further study include the following:

- In addition to the elementary content teacher, it is recommended that the
  district consider how effectual the SIOP® online professional development
  would be for secondary content teachers who also have ELs in the content
  classroom.

- How are other districts training their content teachers to teach ELs?
  Additionally, are other districts offering the online SIOP® professional
  development?

- How prepared is KPS to teach ELs in the elementary content classroom given
  the current numbers and expected growth?

For the researcher, the following is potential for further study:

- This study indicated a relationship between content teachers taking the online
  SIOP® professional development and their perceptions about how they plan
  for ELs' instruction. Additional study by way of a case study or interviews
  could reveal insight into implementation of the SIOP® best practices
  including: If the language objectives are applied in the classroom during peer
  collaboration; How the supplementary aids build background and increase
  vocabulary; and Does the formative assessment lend itself to making content
  comprehensible?

Concluding Remarks

This study, though focused on this specific district, gained useful information.
Most teachers (94%) reported that they took the course for their own professional
development and 56% responded that they preferred to take the course in an online

format. Additionally, SIOP® provides an opportunity for improvement science[7]: this research provides the program background; and this research provides the venue by which KPS can adapt SIOP® in the local context.

Although there is room for additional study, this presentation gives a good spark to the conversation of how the district is preparing elementary content teachers to teach ELs. By using an online format, the potential to reach a vast audience with the SIOP® curriculum is worth consideration.

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[7] Improvement science refers to when researchers work directly with educators to identify and implement paths for improvement within particular settings.

Teacher Perceptions of Online SIOP® Professional Development

Please take a few minutes to respond to each of the 20 items below regarding Teacher Perceptions of Online SIOP® Professional Development. This should take you no more than 10 minutes. Some responses will require one response while some will require multiple responses. All responses will be treated confidentially.

Please select the answer choice based on your background information.

During the past 4 years, what proportion of students' (total) in your classes have been English Learners (ELs)?

○ Less than 10%

○ 10% to 25%

○ 25% to 50%

○ Over half

What was your primary reason for taking the online SIOP® course? Choose all that apply.

☐ Certification

☐ Professional Growth

☐ Other

Why did you take the on-line SIOP® course rather than the face-to-face course? Choose all that apply.

☐ Convenience

☐ Self-paced

☐ Other

Would you have preferred to take the course face-to-face?

○ Yes

○ No

If yes, why didn't you? Choose all that apply.

☐ Schedule (semester) was not convenient

☐ Schedule (number of sessions) was not convenient

☐ Location was not convenient

☐ Cost

For the following questions, I would like you to estimate how often you do the following when you prepare lessons that include EL students.

Write content objectives

○ Always (Daily)

○ Most of the time (Weekly)

○ Sometimes (Monthly)

○ Never

Write language objectives

○ Always (Daily)

○ Most of the time (Weekly)

○ Sometimes (Monthly)

○ Never

Consider the proficiency level of the EL students

○ Always (Daily)

○ Most of the time (Weekly)

○ Sometimes (Monthly)

○ Never

Include supplementary aids to promote content concepts (i.e., charts, pictures, multimedia)

○ Always (Daily)

○ Most of the time (Weekly)

○ Sometimes (Monthly)

○ Never

Adapt the content to the language proficiency level of the EL students

○ Always (Daily)

○ Most of the time (Weekly)

○ Sometimes (Monthly)

○ Never

Integrate activities that involve practice in listening and speaking (i.e., Accountable Talk)

○ Always (Daily)

○ Most of the time (Weekly)

○ Sometimes (Monthly)

○ Never

For the following questions, I would like you to indicate how often you do the following when you implement your lesson plans in classes that include EL students.

Apply SIOP® lesson preparation components to your reading lesson plans

○ Always (Daily)

○ Most of the time (Weekly)

○ Sometimes (Monthly)

○ Never

Build EL students' background knowledge (i.e., make connections to the learning)

○ Always (Daily)

○ Most of the time (Weekly)

○ Sometimes (Monthly)

○ Never

Consider comprehensible input (i.e., adjust rate of speech or use hand gestures) when you are in front of the EL students in your classroom

○ Always (Daily)

○ Most of the time (Weekly)

○ Sometimes (Monthly)

○ Never

Use scaffolding strategies when teaching reading lessons to EL students

- o Always (Daily)

- ○ Most of the time (Weekly)

- ○ Sometimes (Monthly)

- ○ Never

Allow EL students to collaborate with their peers through content and interact with content while speaking and listening

- ○ Always (Daily)

- ○ Most of the time (Weekly)

- ○ Sometimes (Monthly)

- ○ Never

Conduct formative assessments

- ○ Always (Daily)

- ○ Most of the time (Weekly)

- ○ Sometimes (Monthly)

- ○ Never

Adjust your pace after you've made a formative assessment

○ Always (Daily)

○ Most of the time (Weekly)

○ Sometimes (Monthly)

○ Never

For the following question, I would like you to consider the majority of the EL students you've had in class since you've been trained in SIOP®. Choose all that apply.

In what ways has the SIOP® professional development had a positive effect on your instruction with ELs?

○ I adjust my rate of speech

○ I use multimedia sources more often

○ I use cooperative learning frequently

○ I pre-plan the higher order questions that I ask

○ I pre-teach key vocabulary

○ I emphasize vocabulary using tools such as word banks

○ I use simple graphic organizers to scaffold reading

○ I make sentence stems available to assist with writing

○ I revise the lesson based on formative assessment

○ I re-teach based on summative assessment

This question is optional. It requires an open-ended response.

What barriers have you faced in implementing SIOP® in your classes?

_____

_____

_____

_____

_____

Please share your email address if you would like to be considered for the random Amazon Gift Card drawing.

_____

Appendix B:

Initial Email ~ Participants

*** This letter is being sent on behalf of Ms. Aundrea McCall through the Department of Testing, Research, and Evaluation to ensure your privacy. ***

November 27, 2017

Dear SIOP® Online Training Participant:

My name is Aundrea McCall and I am requesting that as a teacher with English Learners (ELs) in your classroom, you support my research on the SIOP® online professional development you took with Kerby Public Schools in conjunction with Pearson Education. I am conducting the research as part of my University of Maryland doctoral research under the direction of Dr. Drew Fagan. You are being asking to take an anonymous survey that should take no longer than 10-15 minutes to complete.

If you respond by December 1, 2017 and leave your email address at the confidential site at the end of the survey, you will be entered into a drawing for a $25 Amazon gift card.

Because 25% of students are expected to make up the public school population by 2025, the goal of my research is to determine if the SIOP® online professional development is useful to classroom teachers such as yourself. Also, I am seeking to determine if your lesson planning is influenced by what you learned in the course. My goal is to receive at least 60 responses within one week. If you choose to respond, please click on the link below and take the survey.

This is what you need to know:
1. The survey has been approved by the University of Maryland's Institutional Review Board and the KPS's Department of Testing, Research and Evaluation. It is deemed appropriate for dissemination to you.
2. Taking the survey is voluntary and your responses will be completely anonymous. Your participation will have no effect on your role in the school district.

Thank you very much for your time and consideration. If you are willing to participate, please click here: https://umdsurvey.umd.edu/jfe/form/SV_cUDAvTn1JXrAUw5

Aundrea McCall
amccall@umd.edu

Appendix C:

Follow-up Email ~ Participants

*** This letter is being sent on behalf of Ms. Aundrea McCall through the Department of Testing, Research, and Evaluation to ensure your privacy. ***

December 11, 2017

Dear SIOP® Online Training Participant:

This is a follow-up email asking that you please complete the survey, Teacher Perceptions of Online SIOP® Professional Development. For your convenience, the initial email is below. If you have already completed the survey, please disregard this reminder and thank you!

If you have not yet completed the survey, I strongly encourage you to complete it by clicking on the link below. The results will inform the school district on providing opportunities for SIOP® online professional development in the future. The survey is completely anonymous and should take no longer than 10-15 minutes to complete.

If you are willing to participate, please click here: https://umdsurvey.umd.edu/jfe/form/SV_cUDAvTn1JXrAUw5

Thank you,

Aundrea McCall
amccall@umd.edu

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