

Utilizing a Differentiated SIOP Model to Foster Life Skills and Motivation in Inclusive Primary EFL Classrooms

Dr. Samah R. Al-Refaey

Associate Professor: Curriculum
Instruction Dept. (TEFL) &
Faculty of Education
Mansoura University

نموذج بروتوكول ملاحظة التدريس الوقائي المتميز (SIOP) لتنمية المهارات الحياتية والدافعية لتلاميذ الدمج في فصول اللغة الانجليزية كلغة اجنبية بالمرحلة الابتدائية

سماح الرفاعي

أستاذ مساعد بقسم المناهج وطرق التدريس، كلية التربية، جامعة المنصورة.

البريد الالكتروني: samahr@mans.edu.eg

المستخلص:

استهدف البحث دراسة أثر تطبيق نموذج بروتوكول ملاحظة التدريس الوقائي المتميز لتنمية المهارات الحياتية والدافعية لدى تلاميذ المرحلة الابتدائية في فصول الدمج. وقد تم تبني الإطار المفاهيمي والبرمجي لتعليم المهارات الحياتية والمواطنة التابع لليونيسيف لعام (٢٠١٧). وقد اشتملت أدوات الدراسة على قائمة بالمهارات الحياتية المتعلقة باللغة لتحديد أهم المهارات الضرورية لتلاميذ الصف الرابع الابتدائي، اختبار مواقف مصور لتقييم تصورات التلاميذ للمهارات الحياتية في المواقف المختلفة، بطاقة ملاحظة المهارات الحياتية ليتم تطبيقها بواسطة المعلم داخل الفصل الدراسي، ومقياس الدافعية نحو تعلم المهارات الحياتية. تم تحديد سبع مهارات حياتية بواسطة الخبراء في المجال على انها ضرورية للعينة المستهدفة والتي تكونت من تسع وسبعين تلميذا وتلميذة بالصف الرابع الابتدائي. تم تقسيم العينة إلى مجموعتين احدهما ضابطة (ن=٣٩) تم التدريس لها بالطريقة المعتادة، والأخرى تجريبية (ن=٤٠) تم التدريس لها باستخدام النموذج المتميز المقترح. وقد تم اختيار محتوى ثلاث وحدات من الكتاب المدرسي ليتم تقديمها وفق مراحل نموذج بروتوكول ملاحظة التدريس الوقائي المتميز على مدى اثني عشرة جلسة. توصلت النتائج إلى وجود أثر دال للنموذج المتميز في تحسين المهارات الحياتية والدافعية لتعلمها لدى تلاميذ المجموعة التجريبية الذين تفوقوا على اقرانهم بالمجموعة الضابطة. كذلك تبين وجود فروق ذات دلالة إحصائية بين متوسطات درجات تلاميذ المجموعة التجريبية على التطبيقين القبلي والبعدي لأدوات البحث لصالح التطبيق البعدي. وقد قدم البحث أيضا مجموعة من التوصيات والمقترحات لبحوث مستقبلية.

الكلمات المفتاحية: نموذج بروتوكول ملاحظة التدريس الوقائي المتميز، المهارات الحياتية، الدافعية، فصول الدمج، المرحلة الابتدائية، اللغة الإنجليزية كلغة اجنبية.



Utilizing a Differentiated SIOP Model to Foster Life Skills and Motivation in Inclusive Primary EFL Classrooms

Samah R. Al-Refaey

Associate Professor: Curriculum & Instruction Dept. (TEFL)

Faculty of Education, Mansoura University

Email: samahr@mans.edu.eg

ABSTRACT

The current research investigated the effect of implementing a differentiated SIOP model for developing primary-stage pupils' life skills and motivation in an inclusive EFL classroom. The UNICEF's Life Skills and Citizenship Education Conceptual and Programmatic Framework (2017) was adopted. Instruments of the study included a life skills checklist for determining the most necessary language-related life skills for fourth-year primary stage pupils, an illustrated situational test to assess pupils' conceptions of life skills in different situations, a life skills observation checklist to be administered by the teachers in the classroom, and a motivation to learn life skills scale. Experts determined seven main language-related life skills necessary for target participants. The research sample consisted of seventy-nine fourth-year primary-stage pupils divided into a control group (n= 39) that was taught using the traditional method and an experimental group (n= 40) that was taught using the proposed differentiated model. The content of three selected units presented according to the stages of the differentiated SIOP model was taught to pupils throughout twelve sessions. Results revealed that the differentiated model had a significant effect on the experimental group pupils' life skills and motivation to learn them as they outperformed the control group pupils, and there were statistically significant differences between experimental group pupils' mean scores on the pre-and post- administrations of the instruments of the research favoring the post-administrations. The research also proposed some recommendations and suggestions for further research.

Keywords: Differentiated SIOP Model, life skills, motivation, Inclusive classroom, EFL, Primary stage pupils.

Introduction

The contemporary period is characterized by unprecedented scientific and technological advancements, propelling innovation at an accelerated rate. The dawn of the new millennium has ushered in remarkable discoveries and broadened developmental frontiers within science and technology. In this evolving landscape, life skills play a vital role in fostering psychological resilience and competency among youth, enabling them to adapt to the complexities of daily life.

The concept of "life skills" encompasses a diverse set of abilities, competencies, and strategies applicable across various domains. It is closely linked to education, health, and social development, aiming to enhance cognitive, emotional, personal, and interpersonal capacities. Fundamentally, these skills serve as essential tools for fostering mental and social well-being, equipping individuals to navigate the challenges of everyday life (Wiedemann, 2013). Life skills constitute a set of personal and social capabilities that empower individuals to function effectively and confidently in their personal lives and within society. As defined by Hendricks (1998, p.4), they are "skills that help an individual to be successful in living a productive and satisfying life," highlighting their significance in achieving well-being and social integration.

Life skills have been defined in numerous ways. According to Bailey and Deen (2002), whether labelled as life skills, 21st-century skills, soft skills, or social skills, these abilities collectively represent a broad and dynamic concept. Since effective social functioning demands a variety of competencies, life skills cannot be confined to a single classification. Instead, they empower individuals to adapt to evolving circumstances and overcome life's challenges. Enhancing life skills equips students with the ability to tackle challenges and risks, capitalize on opportunities, and resolve conflicts collaboratively and peacefully. These skills contribute to developing a strong self-identity, fostering an individual's role within their family, community, and broader society (Wiedemann, 2013). Life skills, as defined by the World Health Organization, consist of self-awareness, empathy, interpersonal relationships, effective communication, critical and creative thinking, decision-making, problem-solving, and strategies for managing emotions and stress. These essential competencies are classified into three categories: cognitive skills, social skills, and coping or negotiation skills (Kumar, 2017). Nevertheless, the Life Skills and Citizenship Education (LSCE) Framework defines 12



essential life skills, collectively referred to as "the 12 Life Skills." These include creativity, critical thinking, problem-solving, cooperation, negotiation, decision-making, self-management, resilience, communication, respect for diversity, empathy, and participation (UNICEF and partners, 2017; Hoskins & Liu, 2019).

The incorporation of life skills into curricula represents a paradigm shift that broadens competencies to encompass not just knowledge and skills but also the integration of behaviors, attitudes, and values, thereby fostering a well-rounded development approach. (UNICEF, 2012). Aligned with this perspective, Pishghadam and Zabihi (2012: 97) advocate shifting the focus of EFL teaching from mere linguistic theories to a transformative perspective. Their proposition includes the integration of a "life curriculum" into the EFL framework, introducing what they termed "English for Life Purposes." This approach addresses crucial life skills, including motivation for learning, emotional intelligence, critical thinking, and creativity, in addition to managing learner anxiety, neuroticism, and burnout. Key features of this methodology included discussing a broad range of topics from social to scientific; promoting pair work and group discussions; drawing cultural comparisons; immersing learners in the vocabulary and grammar of a foreign language; encouraging authentic self-expression in a foreign language; emphasizing the seriousness of language learning; and cultivating an enjoyable and friendly learning environment.

Empirical studies on life skills have highlighted a significant link between these skills and academic success, particularly among students with lower academic achievement (Amirian, 2012; Gutman & Schoon, 2013). Research also shows that life skills are crucial for the well-being of both children and adolescents. Anuradha (2012) discovered a significant connection between life skills and self-concept, while Bardhan (2016) demonstrated that life skills training could lead to positive behavioral changes in children exhibiting problem behaviors. Additionally, Bharath and Kumar (2010) identified life skills education as a practical approach to enhancing adolescents' mental health, mainly through participatory activities such as games, debates, role-playing, and group discussions involving active teacher engagement. Finally, Malik et al. (2012) explored the effects of life skills training on academic anxiety, adjustment, and self-esteem

among early adolescents, reporting notable enhancements across all these dimensions.

Life skills comprise a range of skills, attitudes, values, behaviors, and specialized knowledge, all of which must be integrated effectively. This complexity creates multiple challenges in assessing them. Specifically, the multi-dimensional characteristics of each skill require the measurement of its distinct components. Another challenge lies in distinguishing between cognitive and non-cognitive aspects of life skills, which calls for separating cognitive and non-cognitive test items. Additionally, there is a significant gap in current research regarding the expected proficiency levels of various life skills, universally and for specific age groups. Insufficient studies exist on classifying life skills levels or defining clear benchmarks for skill attainment (Hoskins & Liu, 2019).

At the elementary stage, life skills education plays a vital role in preparing children. It equips them with essential skills and knowledge, enabling them to effectively navigate the various challenges and obstacles encountered in their daily and future professional lives. Teaching children essential life skills from an early age helps them become better equipped to make informed decisions, solve problems effectively, communicate clearly, and regulate their emotions. This foundation is crucial for their future success and well-being. Elementary school is a pivotal developmental stage where children begin shaping their attitudes, values, and perceptions of the world and themselves. Life skills education is crucial in helping students develop key social and emotional competencies such as empathy, resilience, and self-esteem. These skills are vital for sustaining positive relationships, managing stress, and adapting to new environments. When children are empowered with the ability to tackle life's challenges, they are better prepared to succeed in all areas of their lives (Dange, 2016; Kumar, 2017; Rahman, Shah & Salam, 2023).

Motivation, originating from the Latin word *movere*, is a process that starts with a need and drives behavior aimed at reaching a specific goal (Melendy, 2008). It is a fundamental element in successful language acquisition, offering learners both purpose and a clear pathway to follow. A lack of motivation can lead to significant challenges for learners. Without a strong desire to learn, it becomes difficult for students to engage in effective learning. Teachers must recognize the importance of motivation in language acquisition, and with some adjustments, they can help foster and enhance learners'

motivation (Lai, 2011). The essence of motivation is often rooted in passion, which reflects a person's inner goals and aspirations. Successful learners are self-aware, recognizing their preferences, strengths, and weaknesses, and they make use of their strengths while working to overcome their weaknesses.

Motivation is a vital component in the pursuit of learning, as it is impossible to carry out learning activities without it. It determines the level of effort and intensity a student puts into their learning endeavors. Motivation is a crucial determinant of success in language learning, and numerous factors have been identified that can help boost learners' motivation. Gardner's Socio-Educational Model and Deci and Ryan's Self-Determination Theory (SDT) are two widely recognized frameworks that have played a significant role in language learning research. Moreover, external factors such as cultural background, age, gender, rewards, feedback, and goal-setting have been found to impact learners' motivation considerably. Therefore, language teachers need to incorporate these theoretical perspectives and consider external factors when developing language learning programs, as this can significantly increase learners' motivation and improve their language proficiency (Miao & Wang, 2023).

An inclusive classroom is commonly defined as one where students with special needs, disabilities, or impairments are integrated with their peers in general education environments appropriate for their age group. While this remains the primary definition, the concept of inclusive classrooms is evolving to encompass a broader range of inclusivity beyond special education needs (Webster, 2014). Concerning identification and admission procedures for inclusion at Egyptian schools, they are ineffective. Students at the age of school admission take IQ tests to determine their intelligence ratio to indicate eligibility for admission in inclusive schools. No specific plan for teaching them inclusively is declared. Almost all the teachers are not qualified to deal with this disorder in regular classes. Most of them either segregate those students if they attend class or just let them do what they want. The most prevailing procedure for instruction in Egypt is just applying alternative assessments for those students only during exams. That is why they need to pay specific attention to applying differentiated instruction.

In teaching, differentiation is the process of customizing instruction to each student's unique needs in the classroom. In order to

guarantee that every student can access the curriculum and advance, it strives to offer various learning opportunities. It acknowledges pupils' varying learning styles, aptitudes, interests, and readiness levels.

Differentiated instruction is founded on the belief that students have diverse learning styles, needs, strengths, and abilities, requiring that classroom activities be modified to address these differences. It involves adapting teaching methods to suit individual learners. The success of this approach relies on continuous assessment and dynamic grouping strategies. Differentiation in primary education is a key component of an inclusive classroom. It allows each student to work within their unique zone of proximal development, fostering interest in learning and equipping them with the skills needed for future success. By implementing differentiated instruction, teachers have the ability to design a learning space that addresses the needs of all learners, thereby enhancing the overall quality of instruction.

The number of students with learning disabilities and advanced abilities in general education settings has been rising. Due to the national shortage of special educators, general classroom teachers often serve as the primary instructors for students with special needs (Stronsnider & Lyon, 1997). As a result, inclusive classrooms have become the standard, "with general classroom teachers having primary, if not sole, educational responsibility for the full spectrum of learners, including students who have a range of learning problems and learners who are advanced" (Tomlinson et al., 1997, p. 269).

In the 1990s, Dr Jana Echevarría, Dr MaryEllen Vogt, and Dr Deborah J. Short developed the Sheltered Instruction Observation Protocol (SIOP) model to meet the increasing demand for effective instructional strategies in classrooms, especially for English language learners (ELLs). Initially created as an observation protocol, the SIOP Model was transformed into a tool for lesson planning and delivery based on suggestions from collaborating teachers (Short, 2017). It has gradually developed into a pedagogical strategy that assists subject area teachers in incorporating academic language development into their content lessons and utilize ESL techniques to make complex concepts accessible. The SIOP Model aligns with many other proven instructional approaches, including differentiated instruction, cooperative learning, and reading comprehension techniques (Echevarría, Vogt, et al., 2008).

As a framework for instruction, the SIOP Model enables teachers to present curriculum content to English language learners using strategies that facilitate comprehension. While doing so, it also



promotes the development of academic language skills in the areas of reading, writing, listening, and speaking. The SIOP model is structured around eight essential components: “Lesson Preparation, Building Background, Comprehensible Input, Strategies, Interaction, Practice and Application, Lesson Delivery, and Review and Assessment”. These eight components of the SIOP Model and their thirty features take place in three phases: Focus, Practice, and Closure (Shivani& Kaur, 2020).

In essence, the SIOP Model serves as a comprehensive framework for professional development that enhances teachers' instructional practices and significantly benefits students by improving their academic performance and language development skills (Piazza et al., 2020). The strength of the SIOP model lies in its integration of various theoretical perspectives. It is influenced by humanistic, social interaction, cognitive, and behavioral learning theories, alongside the second-language acquisition theories proposed by Krashen, Cummins, and Vygotsky. In addition, the ideology of the SIOP teaching model, wherein the teacher follows the learning styles of all the students, would be a great appeal. Further studies are necessary to explore the effectiveness of the SIOP Model in various subjects and variables. It is also significant to recommend that future research involve more diverse learners and populations in various settings (Shivani& Kaur, 2020).

In conclusion, the SIOP model seems to be a flexible framework that can accommodate various learning styles and abilities in an inclusive classroom in a systematic way that helps EFL teachers to inculcate language-related life skills necessary for those pupils at this stage. That is why the current research sought to assess the impact of implementing the SIOP model on language-related life skills and motivation to learn them in inclusive EFL primary classrooms.

Need for the research:

Developing life skills is an old idea with new approaches; however, it is not excessively manipulated in experimental studies. The scarcity of studies in this area could be attributed to many reasons. First, most of the studies that handled the development of life skills dealt with adolescents (9- 15 years) and secondary stage students. Few studies have experimented with developing them in childhood or the elementary stage (Tan, 2018; Saputra, Sutarman& Syamsurrijal, 2020). Second, despite considerable progress in this field, life skills

remain a frequently targeted developmental domain that still lacks standardized measurement instruments (Duerden & Witt, 2011). Almost all the instruments used for assessing life skills are privately owned and not publicly available. Further, an early Egyptian evaluative study by Mostafa, Dadour, and Al-Shafei (2016) concluded that life skills were not well-represented in the primary-stage EFL textbooks and recommended that they should be integrated into the EFL curriculum.

In fact, life skills can develop in multiple environments and through different social connections. These skills may be gained at home through interactions with parents, guardians, and siblings, in educational institutions with teachers and fellow students, in the workplace with coworkers, and through involvement in civil society. Nevertheless, many young people still lack access to formal life skills instruction. In order to promote equity, education systems must be rethought and reformed to prepare every child with the essential life skills needed to succeed in a challenging, fast-paced, and intricate world. Achieving this goal calls for open education systems that engage the most marginalized through various channels (Hoskins & Liu, 2019). Teachers also need to be equipped with professional skills that enable them to make use of various available resources and integrate them in their instruction to inculcate life skills in their students (Nqabeni & Cishe, 2023).

In an attempt to cope up with new trends in education, *Connect 4*; the English textbook prescribed by the Egyptian Ministry of Education for Primary four pupils, builds on and supports the development of essential life skills within four dimensions of learning developed by the UNICEF for MENA region, and adopted by the English language curriculum framework: learning to know, learning to do, learning to live together, and learning to be. Moreover, concerning inclusion, seven categories of students with mild disabilities are integrated in the English language classroom. Specific considerations and teaching strategies are listed in the teacher's guide for teachers to keep in mind when dealing with these students to help them perform well, and to provide high quality education for all (Dutton, 2022). However, no specific procedures are being illustrated for teachers to apply inside the classroom while teaching the content of the lesson. Teachers are also unaware of suitable strategies for dealing with and teaching those pupils, especially in relation to life skills.

Consequently, there was a need for a systematic procedural model for teaching life skills in the context of primary inclusive EFL

classrooms; a model that clarifies the exact procedures and steps for developing the targeted life skills necessary for those pupils. In addition, the consequent need to motivate pupils to learn these skills and participate in the activities that would lead them to master these skills and enjoy learning them was also apparent. The SIOP model was hopefully expected to meet these needs.

To substantiate the problem of the research, the researcher interviewed three EFL teachers about their observations concerning the fourth-grade pupils' mastery of life skills, especially within inclusive classrooms. Teachers expressed their concern about the integration of life skills within the textbook, as there is no suggested method for teaching them in the teacher's guide. In addition, they are provided with separate techniques for dealing with special educational needs pupils without prescribing the appropriate procedures for applying them in the class. Consequently, pupils do not master the life skills as they do not get adequate instruction about them.

Statement of the problem:

Based on the researcher's observations, the results of the pilot study, and the review of related literature, the problem of the current research was stated as follows:

Primary-stage pupils need to develop their life skills, especially within the context of an inclusive EFL classroom. To achieve this purpose, EFL teachers also need to have a systematic approach to planning and delivering their lessons. Therefore, a differentiated SIOP Model was developed and implemented to develop life skills in a primary inclusive EFL classroom.

Questions of the research:

The focus of the current research was to investigate the main question: "What is the effectiveness of a differentiated SIOP model in developing life skills and motivation in primary inclusive EFL classrooms?"

The main question was divided into the following sub-questions:

- 1- What are the most suitable life skills that should be developed in the fourth-year primary stage, especially in the context of inclusive EFL classrooms?
- 2- What are the features of a differentiated SIOP Model for developing life skills in the primary inclusive EFL classroom context?

- 3- What is the effectiveness of a differentiated SIOP Model in developing life skills in primary inclusive EFL classrooms?
- 4- What is the effectiveness of a differentiated SIOP Model in developing motivation towards learning life skills in primary inclusive EFL classrooms?

Hypotheses:

- 1- There is a statistically significant difference between the mean scores of the experimental and control group pupils on the post- administration of the life skills situational test in favor of the experimental group.
- 2- There is a statistically significant difference between the mean scores of the experimental group pupils on the pre- and post-administrations of the life skills situational test in favor of the post- administration.
- 3- There is a statistically significant difference between the mean scores of the experimental and control group pupils on the post- administration of the life skills observation checklist in favor of the experimental group.
- 4- There is a statistically significant difference between the mean scores of the experimental group pupils on the pre- and post-administrations of the life skills observation checklist in favor of the post- administration.
- 5- There is a statistically significant difference between the mean scores of the experimental and control group pupils on the post-administration of the motivation towards learning scale in favor of the experimental group.
- 6- There is a statistically significant difference between the mean scores of the experimental group pupils on the pre-and post-administrations of the motivation towards learning scale in favor of the post-administration.
- 7- There is a positive correlation between fourth-year primary pupils' life skills and their motivation to learn them.

Instruments:

The instruments listed below were developed and implemented by the researcher:

- 1- A life skills checklist: to specify the most important life skills for fourth-year primary school pupils, especially in an inclusive EFL classroom context.
- 2- An illustrated situational test for assessing pupils' conceptions of life skills in various situations.

- 3- A life skills observation checklist for teachers: to assess pupils' life skills mastery in the classroom by their EFL teachers.
- 4- A motivation towards learning scale to assess 4th-year primary stage pupils' motivation towards learning life skills.

Purpose of the research:

The present research aimed at:

- 1- Specifying the life skills that should be inculcated in primary-stage pupils, especially since developing life skills has become a major objective in the primary stage.
- 2- Determining the features of a differentiated SIOP Model that could be implemented in a primary inclusive EFL classroom context.
- 3- Determining the effectiveness of a differentiated SIOP model in enhancing primary-stage pupils' life skills.
- 4- Determining the effectiveness of a differentiated SIOP model in enhancing primary-stage pupils' motivation towards learning.

Significance of the research:

This research aims to highlight the significance of:

- 1- Incorporating the SIOP model as a structured instructional framework into the EFL teacher's guide for the primary stage. The findings are anticipated to encourage EFL curriculum developers to prioritize integrating this model into their planning processes.
- 2- Helping EFL teachers adapt their teaching practices to suit the requirements of developing 21st-century skills, namely life skills in their primary stage pupils, through implementing the differentiated SIOP model in their teaching practices.
- 3- Helping the primary stage pupils develop their life skills in such a way that suits both mainstream and special educational needs pupils in an inclusive classroom.
- 4- Attracting the attention of researchers in the field of EFL to the SIOP model as a practical approach for developing life skills and its suitability for developing language skills.
- 5- Enriching literature concerning life skills assessment by providing multiple instruments: an observation checklist to be administered by teachers and a situational test to be answered by the pupils.
- 6- Enriching literature concerning motivation development in primary schools, especially in an inclusive context.

Delimitations of the research:

The current research was delimited to the following delimitations:

- 1- A sample of fourth-year primary stage pupils in an inclusive classroom that includes mainstream and special educational needs pupils.
- 2- Some life skills suitable for primary stage pupils as determined by EFL specialists through the checklist administered for that purpose.
- 3- The content of Connect 4 textbook, three units of the first term.

Definition of terms:**Differentiated SIOP Model**

By definition, differentiated instruction is an educational strategy aimed at supporting the unique learning requirements of each student, particularly in classrooms characterized by diverse backgrounds and varying needs.

Tomlinson (2000, p.68) defined differentiation as “simply attending to the learning needs of a particular student or small group of students rather than the more typical pattern of teaching the class as though all individuals in it were basically alike. The goal of a differentiated classroom is maximum student growth and individual success.”

Sheltered instruction, designed as a differentiated strategy for English learners (ELs), establishes a framework that facilitates the dual goals of learning age- and grade-level content and achieving English language proficiency (Echevarría, Vogt, & Short, 2017; Marcos & Himmel, 2016). Sheltered instruction can be viewed as an on-ramp to promote language and literacy development while making the content more accessible.

As described by Echevarria, Vogt, and Short (2004; 2017), the **SIOP Model** is a structured, research-backed instructional framework aimed at teaching English language learners both language skills and academic content in the same classroom as their native English-speaking peers. It is an initiative to create a unified understanding of sheltered instruction.

As a teaching framework, the **SIOP Model** encompasses general educational principles while emphasizing improving the academic performance of English language learners. It offers educators a well-structured resource that includes thoughtfully designed lesson plans, research-based strategies, and proven best practices to foster students’ success in content learning and language development (Echevarria, Vogt, and Short, 2004; 2017).

The differentiated SIOP Model is operationally defined in the current research as a pedagogical model that offers teachers well-developed lesson plans, research-based strategies, and best practices, all systematically integrated to foster students' success in acquiring content knowledge, language proficiency, and essential life skills. A key component of this model is its emphasis on differentiation, whether through content, instructional processes, learning products, or classroom environment.

Life skills

The **World Health Organization (WHO) (1997)** defines life skills as the essential abilities for adaptive and constructive behavior that empower individuals to navigate the demands and challenges of daily life effectively. These fundamental skills equip individuals to handle various aspects of life with confidence and resilience.

According to UNESCO (2010), Life skills are a broad range of cognitive, personal, and interpersonal capabilities that support individuals in making informed choices, resolving problems, engaging in critical and creative thinking, communicating effectively, establishing strong relationships, practicing empathy, and leading a balanced and productive life.

UNICEF (2012) perceived life skills as a sequence of capacities, behaviors, and socioemotional qualifications that empower learners to make decisions and execute actions leading to a constructive and prosperous life. By strengthening essential abilities like literacy, numeracy, and digital skills, these competencies also extend their applicability to diverse fields, including ecological education and developmental studies.

Defined as psychosocial abilities, life skills enable individuals to apply their knowledge, attitudes, and values in ways that promote well-informed and healthy behaviors. With these skills, young people can rationalize decision-making based on careful discernment of “what to do, why to do it, how to do it, and when to do it” (Central Board of Secondary Education, 2013: 4).

With reference to the delimitations of the current research, seven life skills were determined as necessary for primary stage pupils to be developed. These skills are defined according to the LSCE Framework (UNICEF and partners, 2017) as follows:

Critical thinking is defined as “the ability to think purposefully and identify how this life skill can be performed when the learner has

learned to think about thinking” **Communication** is defined as “the sharing of meaning through the exchange of information and common understanding”; and as requiring both verbal and nonverbal skills, and learning throughout life (p. 76).

Self-management is “the ability to effectively regulate and monitor one’s emotions, feelings, thoughts, impulses, and behaviors in different situations.”

Cooperation has been defined similarly as in other frameworks in the field as “the act or process of working together to get something done or to achieve a common purpose that is mutually beneficial”.

Decision-making is understood both as a process and as a composite cognitive skill. As a skill, it “closely interrelates with critical thinking, cooperation and negotiation” but also with self-management, which is “important to control impulsive reactions to a situation”. The process component of the LSCE definition acknowledges that decision-making consists of at least five stages: (a) setting objectives, (b) gathering information (for informed decisions), (c) generating options, (d) assessing and making a decision, and (e) implementing the chosen course of action.

According to Salovey and Mayer (1990), **empathy is defined** as “...the ability to comprehend another’s feelings and to re-experience them oneself.” Notably, UNICEF and its partners (2017) expand the definition by emphasizing that empathy does not involve the other person’s moral judgment.

Respect for diversity is based on this moral philosophy that “diversity means understanding that each individual is unique and recognizing each other’s individual differences”.

Inclusive classroom

According to Kumar (2021), inclusive education means that every learner, irrespective of their difficulties in any particular area, is included in the broader school community. They share in the collective sense of belonging with other students.

An inclusive classroom fosters a supportive atmosphere where all students feel academically and intellectually encouraged, with a deep sense of belonging that transcends identity, learning approaches, or prior educational experiences. This atmosphere is sustained through mutual efforts between instructors and students to promote respect, thoughtfulness, and a commitment to academic excellence, which are vital for the academic success of every student (Kaplan & Miller, 2007).

Motivation:

In his social-educational model of language learning, Robert Gardner (1985, p. 10) defines “motivation” as “the combination of effort plus desires to achieve the goal of learning the language plus favorable attitudes toward learning the language.” In a similar vein, Dörnyei (1994) defined motivation in language learning as being composed of three main aspects: the degree of motivation, the willingness to learn the language, and the attitude toward the process of language acquisition. Brown (1994) defines motivation as “inner drive, impulse, emotion, or desire that moves one to a particular action” (p.152).

According to Harmer (1991), motivation can be understood as a type of “internal drive that encourages somebody to pursue a course of action” (p.3).

Motivation is operationally defined as a drive and a desire that motivates fourth-year primary pupils in an inclusive classroom context to participate in classroom activities that lead them to learn life skills within the framework of a differentiated SIOP Model.

Review of literature and related studies:

The following section offers further insight into the main variables examined in the current research which are life skills for primary stage pupils, inclusive EFL Classrooms, motivation for learning, and the differentiated SIOP Model.

Life skills are abilities that promote adaptive and positive behavior, helping individuals navigate the demands and challenges of daily life. These skills, learned through formal education or personal experience, are used to solve common problems and issues in daily human existence (Dage, 2016). Mastering life skills is crucial for proper social adjustment. These skills empower learners to engage in healthy behavior when they are inclined and have the chance to do so. They act as a link between self-help and self-discipline, fostering better interpersonal relationships and promoting physical and mental well-being. These skills encourage physical health and positive mental and social attitudes and help prevent mental disorders, behavioral problems, and physical health issues (Rani & Menka, 2019; Tan, 2018; Bardhan, 2016; Fitzpatrick, 2014).

In essence, life skills constitute a diverse range of psychosocial and interpersonal competencies that empower individuals to make well-informed choices, communicate efficiently, and cultivate coping

and self-management techniques. These skills contribute to leading a healthy and fulfilling life and play a vital role in enhancing mental well-being and resilience among young people as they encounter life's realities.

A review of various initiatives for classifying life skills reveals that no universally accepted list exists. The significance and priority of these skills depend on factors such as life circumstances, culture, age, and social position. According to the World Health Organization (2010), life skills can be categorized into ten core areas: self-awareness, empathy, effective communication, interpersonal relationships, creative thinking, critical thinking, decision-making, problem-solving, coping with emotions, and coping with stress. Similarly, UNICEF (2012) classifies life skills into three broad categories: communication and interpersonal skills, decision-making and problem-solving skills, and coping and self-management skills.

According to the framework of the UNICEF (2019) in the context of life skills in the Middle East and North Africa (MENA) region, a common conceptual framework identifies four key dimensions of learning, which encompass the following:

- ***'Learning to Know'* or The Cognitive Dimension:** This refers to abilities that emphasize curiosity, creativity, and critical thinking, enabling individuals to develop a deeper understanding of the world and those around them.

- ***'Learning to Do'* or The Instrumental Dimension:** This refers to the ability to apply acquired knowledge in practical contexts, enabling individuals to effectively navigate challenging situations while maintaining efficiency and productivity.

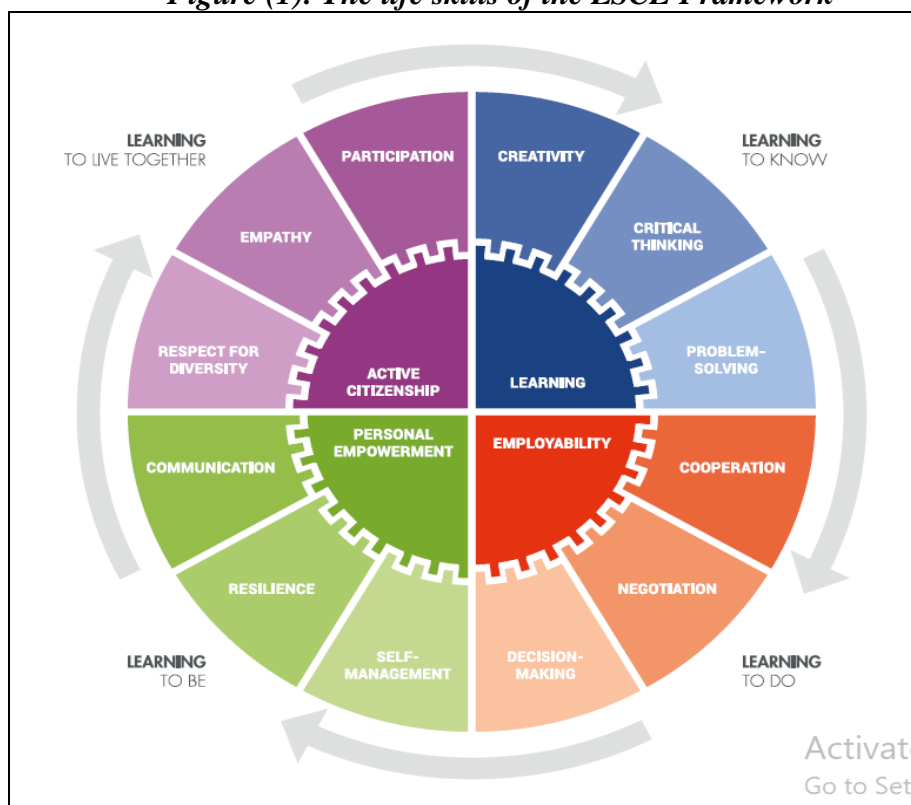
- ***'Learning to Be'* or The Individual Dimension:** This refers to abilities that foster holistic personal development, enabling individuals to act with increasing autonomy, sound judgment, and a strong sense of personal responsibility.

- ***'Learning to Live Together'* or The Social Dimension:** This refers to abilities that foster inclusive identities aligned with democratic values and social justice principles, promoting a human rights-based approach.

The twelve core life skills, as depicted in Figure (1), demonstrate the dynamic interconnection between the four dimensions of learning (life outcomes) and contribute to their development. A single life skill can enhance innovation in learning while simultaneously fostering productivity in the workplace, promoting personal empowerment, and

strengthening civic engagement—thus reinforcing other life skills and life outcomes (UNICEF and partners, 2017; Hoskins& Liu, 2019).

Figure (1): The life skills of the LSCE Framework



(Source: Hoskins& Liu, 2019).

Richard and Rodgers (2001) asserted that intertwining E language instruction with the teaching of essential life skills is indispensable. This is because language acquisition in itself is a pivotal life skill of immense significance for everyone. Isolating English from the sphere of life skills might pose a considerable obstacle for a student's future prospects. A proficient English student should be able to effectively convey their thoughts to varied audiences, be it in a familial setting, among peers, or on a larger stage.

Mahender (2022) suggests that traditional language teaching methods are too rigid for today's evolving world. This view is supported by researchers like Nurbatra, Masyhud and Hartono (2022), Saputra, Sutarman and Syamsurrijal (2020), Mostafa, Dadour, and Al-Shafei (2016), O'dwyer (2013), and Kiran, Seshadri, & Thomas

(2007), who advocated for dynamic teaching methods, such as group work, role-playing, and debates, to impart life skills effectively. Nivedita and Singh (2016) identified several teaching methods and strategies for fostering life skills such as discussions, brainstorming, role-playing, pair or group work, educational games, simulations, analysis and demonstrations, case studies, storytelling, drama, debates, mime, poetry, and chants.

A classroom that prioritizes life skills education should be a place that creates a welcoming, encouraging, engaging, and well-organized learning environment. It's essential to cater to the diverse needs of all students, ensuring that everyone feels acknowledged and valued. A significant emphasis should be on promoting mutual respect and empowering individuals to believe in their capabilities. Collaborative efforts should be fostered, encouraging both teachers and students to work closely with each other. A classroom should serve as a mirror to the real world, reflecting real-life situations and contexts. This makes the learning experience relevant and enriching. Moreover, teachers should take responsibility for crafting ample learning opportunities (Central Board of Secondary Education, 2013).

Life skills education is the heart of education, playing a crucial role in ensuring human survival on Earth. It seeks to provide students with the tools needed to make healthy choices, leading to a meaningful life. This education fosters the comprehensive development of young individuals, enabling them to function effectively in society and become more socially aware (Dange, 2016).

It is pivotal that the focus remains more on the learning process than on the final product or presentation. Expanding on the insights from UNICEF (2006), the success of life skills education is hinged on three critical pillars. First is the skills; Life skills encompass a range of psychosocial and interpersonal capabilities that help individuals handle the challenges and demands of everyday life effectively. These are often divided into three interlinked categories: cognitive, personal, and interpersonal skills. The second pillar represents *content*, which provides context to the skills, and the third represents methods, as life skills cannot be taught in isolation; they need to be integrated into everyday lessons.

The core elements of life skills education encompass a wide range of learning components, including knowledge and understanding of laws, regulations, human rights, diversity, democratic processes, sustainable development, and key concepts such as justice, equality, democracy, and freedom. Additionally, it involves skills such as

critical thinking, expressing opinions, analyzing information, participating in discussions, negotiation, conflict resolution, and engaging in community initiatives. Furthermore, it promotes values and attitudes like respect for justice, democracy, tolerance, courage, adherence to the rule of law, and a willingness to listen to and collaborate with others (Parry & Nomikou, 2014).

In summary, life skills education should not be viewed as an optional addition but rather as an integral part of everyday teaching. Through the right environment and methodology, teachers can mold students who are academically proficient and equipped to handle real-world challenges. In addition, they need to motivate their students to learn in order for them to succeed in achieving learning goals.

In language acquisition, motivation is considered goal-directed and involves effort, desire, and favorable attitudes towards learning the language. It is important for language achievement and significantly correlates with learners' language development. Teachers have a vital role in motivating students and establishing a nurturing and constructive learning environment (Bower, 2017).

There are different classifications of types of motivation. First, according to Deci and Ryan's (1985) self-determination theory, the basic types of motivation in second/foreign language learning are intrinsic and extrinsic. Intrinsic motivation plays a vital role in encouraging learners to engage in learning for the sake of learning itself, driven by an inherent need and a curiosity to acquire knowledge (Ryan & Deci, 2000; Abuhamdeh, Csikszentmihalyi & Jalal, 2015). Given the diversity of learners' backgrounds, teachers can only influence intrinsic motivation to a limited extent; creating a supportive classroom environment is the most effective approach (Putra, Cho & Liu, 2017). Conversely, extrinsic motivation is seen as motivation through rewards or factors to the task. An external goal influences one's behavior towards a task. Therefore, the task serves as a means to attain or gain access to external rewards (Dörnyei, 1994; Lai, 2011).

Second, according to Gardner's theory, motivation is classified into instrumental and integrative. Takahashi (2018) defines integrative motivation as the desire of students to learn a language in order to become a part of a speech community. Learners with integrative motivation are also keen to explore the culture associated with that language (Suryasa, Prayoga & Werdistira, 2017). Finally, in instrumental motivation, language is used to achieve a goal or an aim,

such as succeeding in an exam. Students with instrumental motivation seek to learn a language for pragmatic purposes, like securing a salary, obtaining a bonus, or getting into college (Unrau & Schlackman, 2016; Dörnyei, 2019). In fact, integrative and instrumental motivations are not polar opposites (Dörnyei, 1994). Rather, they are positively correlated, with both serving as meaningful goals that can support language learning. In conclusion, both integrative/instrumental motivations and intrinsic/extrinsic motivations play a role in learning a second or foreign language. However, the importance of each type of motivation varies depending on the context. Similarly, students in different settings may be driven to learn a second or foreign language by different types of motivation (Pham, 2021).

While different frameworks are used by researchers to examine motivation, it is more effective to consider classroom motivation through the "four dimensions" framework, which identifies four primary components of motivation. Researchers like Murray (2011), Pintrich (2003), and Ryan and Deci (2000) generally concur on the main factors that influence student motivation, namely competence, autonomy/control, interest/value, and relatedness. Teachers may encounter students with low motivation, requiring them to employ a range of strategies in the classroom to engage and motivate these learners. While all four dimensions of motivation are interconnected, one dimension may take precedence over the others, depending on the student and the specific activity or context. Considering this, teachers need to learn how to create lessons and activities that activate all four dimensions of motivation to effectively engage all students, especially in an inclusive classroom environment. The following table outlines the factors, their indicators, and suggested strategies for fostering them.

Table 1: Dimensions of motivation and ways of development
(Adapted from: Usher & Kober, 2012)

Dimensions	Indicators The student:	Development Strategies/Techniques
Competence (<i>Am I capable?</i>)	Is confident in their ability to accomplish the task.	- Scaffolding Techniques: Graphic organizers, direct teaching, visual cues, cooperative learning, task breakdown. - Communicating Confidence: Employing language that expresses belief in students' potential and goals.
Control/ autonomy	- Feels empowered by	Differentiation Strategies:



Dimensions	Indicators The student:	Development Strategies/Techniques
(<i>Can I control it?</i>)	recognizing a direct connection between their actions and the resulting outcome. - Maintains autonomy by having the option to decide whether or how to approach the task	- Present different choices for assignments. - Allow multiple ways for students to demonstrate their understanding, including book reports, poster presentations, technology integration, choice boards, and dramatic interpretations.
Interest/value (<i>Does it interest me?</i> <i>Is it worth the effort?</i>)	Is somewhat interested in the task or perceives the benefit/ value of finishing it.	Develop activities that engage students' interests, honor their individuality, and accommodate various learning styles, utilizing manipulatives, movement, and real-world connections and applications.
Relatedness (<i>What do others think?</i>)	Completing the task gives the student social rewards, such as a sense of belonging to the classroom or another important social group or receiving approval from someone they value.	- Creating a Sense of Community: Build community by holding morning meetings, assigning teamwork-based tasks, defining specific roles and duties, utilizing open-ended questioning, and leading discussions or debates within groups. - Encouraging Positive Behavior: Offer positive feedback through verbal encouragement, smiles, high-fives, or stickers.

Childhood represents the critical period for developing healthy social-emotional skills. During their school years, children receive much of their formal education, making this stage of life crucial for their development. This is why life skills can be effectively taught at the school level, positioning schools as ideal environments for life skills training (Kumar, 2017).

The passage of the Individuals with Disabilities Education Act (IDEA) in 1975 ensured that children with disabilities had equal access to public education. To serve these students effectively, educators began utilizing differentiated instruction strategies. With the enactment of the “No Child Left Behind” Act in 2000, there was an increased emphasis on differentiated and skill-based teaching due to the proven

success of these methods. Consequently, the need for inclusive classrooms became evident. In these inclusive classrooms, there is no separation between students with disabilities and their peers. Every student contributes to diverse ideas and actions within the class, and all should be welcomed, valued, and respected, with the diversity in the classroom being acknowledged and celebrated. In this way, students will experience a sense of appreciation rather than differentiation, allowing them to feel more relaxed and comfortable. This is the essence of an inclusive classroom.

Various frameworks have been designed to promote an inclusive learning environment for diverse learners and help them recognize their individual learning styles. One such framework is differentiated instruction, where teachers regularly adapt the content (e.g., the curriculum, materials, and delivery methods), processes (e.g., instructional activities or approaches that facilitate student understanding), and products (e.g., assessment tools to evaluate students' comprehension) in response to students' abilities and needs.

The idea that "One size fits all" no longer applies in the current educational landscape. It's clear that some students learn the English language more quickly or easily than others, even when they are in the same classroom. Since no single method works for every learner, the need for differentiated instruction becomes imperative to address students' varying needs. Tomlinson and Imbeau (2010) explained that differentiated instruction strategies are a structured approach in the classroom that aligns with the needs of students and the content of the syllabus.

The theory of differentiated instruction (DI) arose out of the need to better understand and address the varying needs of individual learners (Tomlinson, 1999). DI is primarily rooted in Vygotsky's Social Constructivism Theory (1978), which emphasizes the active participation of students in the learning process, where knowledge is developed through their engagement with their environment (Osuafor & Okigbo, 2013). Differentiated instruction is also grounded in Gardner's theory of multiple intelligences, providing another foundation for differentiation. Teachers can design activities that align with the various types of intelligence their students possess (Gregory & Chapman, 2013).

Differentiation goes beyond being just an instructional strategy; it is a fresh perspective on how teaching and learning should be understood. It is based on the idea that there are differences among students in all classroom environments and that those differences need

to be accommodated (Valiandes, 2015). DI is suggested to promote an inclusive classroom environment, by better addressing the needs of each student and by taking care of the social-emotional component of learning (Bondy, Ross, Gallingane, & Hambacher, 2007; Simpkins, Mastropieri, & Scruggs, 2009). It is a student- centered approach that recognizes these differences and creates opportunities for all students to engage with the same ideas and to develop important skills, while enabling for multiple pathways to understanding (Tomlinson, 2000; Tobin & McInnes, 2008; Tomlinson & Jarvis, 2009; Dixon, Yssel, McConnell& Hardin, 2014).

Differentiated instruction is grounded in the belief that students vary in their learning styles, needs, strengths, and abilities and that classroom activities should be adjusted to accommodate these differences. Differentiation involves customizing instruction to address individual needs. The incorporation of continuous assessment and flexible grouping contributes to the effectiveness of this instructional approach. At least four classroom elements can be differentiated by teachers, depending on student readiness, interests, or learning profiles:

- Content – The subject matter taught and the means by which students are provided access to important information and ideas (accommodation).
- Process – How students acquire and internalize the knowledge, understanding, and skills that are crucial to a given topic.
- Products – The way students show what they have learned, understood, and can do through effective instruction.
- Learning environment – The classroom's emotional tone and operational structure (Tomlinson, 2001; Tomlinson, 2005).

Differentiating instruction for English Language Learners (ELLs) is most successful when teachers invest time in learning about each student, maintain high expectations for everyone, utilize a variety of research-supported strategies, use continuous assessments to inform their teaching, provide different types of assessments, adjust homework accordingly, work collaboratively with other educators, implement flexible grouping, and make the content accessible for all students by offering ELLs alternative means of engaging with the key

material (e.g., charts, native language books, teacher-simplified texts, discussions, etc.) (Tomlinson, 2005; Echevarria, Vogt, & Short, 2008).

Short, Fidelman, and Louguit (2012) noted that the SIOP model was first developed as an observation tool to evaluate the implementation of sheltered instruction techniques. Over seven years, it transformed into a lesson planning and delivery framework. The SIOP model provides the consistency that was initially missing due to the varied methods teachers used, which led to inconsistencies from one class, teacher, and school to another. That's why it was widely used for teachers' professional development and proved to be very effective (Song, 2016; Koura & Zahran, 2017; Al Fadda, 2020; Walters, 2023).

The SIOP model blends key aspects of high-quality instruction for all learners, such as cooperative learning and reading comprehension techniques. Its components align with a variety of effective educational practices (Echevarria & Short, 2000; McIntyre et al., 2010). Each component of the SIOP model contains three to six embedded features. The descriptions of these components and their embedded features, as outlined by Echevarría et al. (2008) and Echevarría et al. (2017), are as follows:

- **Lesson Preparation:** This stage starts the planning process, where teachers outline content and language objectives, incorporate supplementary materials, and create engaging activities.
- **Building Background:** This component involves linking students' previous knowledge and experiences to new content, as well as expanding their academic vocabulary.
- **Comprehensible Input:** Focuses on how teachers should modify their speech, demonstrate academic tasks, and employ multimodal methods to improve comprehension.
- **Strategies:** This section emphasizes teaching students various learning strategies, providing scaffolding, and fostering higher-order thinking.
- **Interaction:** Encourages teachers to prompt students to elaborate on their responses and group them effectively for enhanced language and content development.
- **Practice & Application:** Activities that allow students to practice and apply both language and content knowledge.
- **Lesson Delivery:** Ensures that lessons align with the objectives and engage students actively throughout.

- **Review & Assessment:** Focuses on reviewing key language and content concepts, evaluating student progress, and offering specific academic feedback.

The inclusion of the eight components and thirty features in the SIOP Model does not suggest that teachers are required to implement all of them in a single lesson plan. In fact, the four lesson plan templates provided by the model's authors serve as guidance for teachers, whether they are experienced or new to implementing the SIOP Model. The components are depicted in Figure (2) as follows:

Figure 2: Components of the SIOP Model



(Source: Savvas Learning Company, 2020)

The authors of the model also highlight the role of scaffolding in reinforcing each lesson. Verbal scaffolding entails prompting, guiding, and assisting learners with diverse questioning strategies that encourage critical thinking and help them develop autonomy. To facilitate language proficiency and skill development, procedural scaffolding employs different grouping strategies that provide tailored support. These include whole-class discussions, small-group interactions, paired learning, and independent assignments (Echevarria, Short, & Vogt, 2003).

Additionally, the Lesson Preparation component emphasizes differentiation, enabling teachers to tailor instruction to accommodate

students with different abilities and language proficiency levels. Although preparing lessons for multiple student groups can be time-consuming, it enhances the learning experience; teachers discover its benefit when all the students in the classroom learn the material without having to reteach (Koc, 2016; Echevarría, Vogt & Short, 2017). Due to its comprehensive range of strategies and activities, the SIOP model is highly recommended for English learners. It supports teachers in fostering students' academic language proficiency in a structured and continuous manner throughout their lessons and units. Moreover, the SIOP model provides varied learning pathways tailored to students' language proficiency levels. (Short, 2003; Echevarría & Graves, 2007; Boughoulidi, 2020).

Various studies assured the benefits of using the SIOP Model in teaching. Nichols (2012) examined the impact of the SIOP model on reading comprehension by comparing two first-grade classrooms- one utilizing SIOP-based instruction and one without it. The study found that students in the SIOP-integrated classroom experienced greater gains in reading comprehension than their peers in the classroom without SIOP. Further, Short, Fidelman, and Louguit (2012) provided evidence supporting the SIOP model as an effective professional development strategy that enhances instructional quality for English language learners and improves their language achievement. Their study found statistically significant differences in favor of the treatment group, which achieved higher mean scores in Writing, Oral Language, and overall English proficiency on the IDEA Language Proficiency Tests. In addition, Gates and Feng (2018) conducted a study to examine its effect on reading fluency of ELLs. Results show the ELL group had significant gains in reading fluency, and the SIOP model was effective in improving their reading performance.

To conclude, it is clear that developing life skills and the motivation to learn them is a requirement for children at an early stage of education. This requirement becomes urgent, especially for pupils within inclusive primary classroom contexts, as it stems from the nature of pupils enrolled in these classes and how they treat each other. Consequently, teachers could rely upon the research-validated SIOP model to assist them in planning and implementing structured procedures that would eventually result in enhanced learning results and motivation for learning on the part of the pupils.



Methodology:

Participants:

Participants in the current research were seventy- nine pupils in the fourth grade primary stage at Monsha't Al-Salam Primary school, East Mansoura Educational Directorate. They constituted two intact classes purposefully assigned to an experimental (n= 40) and a control group (n= 39). Both groups included special educational needs with mainstream pupils. Pupils' age ranged between 10 and 11 years old. Their experience of learning English as a foreign language was identical, with formal instruction starting in the first year of primary education. The following table illustrates the specification of the participants according to gender and learning disabilities:

Table 2: Specifications of participants of the research

Category		Exp. group	Control group	
Gender	Males	19	17	
	Females	21	22	
Special educational needs (8)	Learning disability	2	1	2 males+ 1 female
	Autism	1	1	2 males
	Mild intellectual disability	1	-	1 male
	ADHD	1	1	2 males
Total		40	39	

Design of the study:

The current study adopted a quasi-experimental approach using a pre-post administration to two independent groups design to investigate the effectiveness of using a differentiated SIOP model in developing the life skills and motivation of primary-stage pupils in an inclusive EFL classroom setting.

Procedures

First, designing the instruments and materials for the study

Instruments and materials used in the current research were as follows: (available with the researcher upon request)

1- The life skills checklist:

The checklist was designed to identify the life skills necessary for fourth-year primary stage pupils in an inclusive classroom context. The skills in the questionnaire were based on the UNICEF framework of Life Skills and Citizenship Education in the Middle East and North

Africa (MENA Region), which comprises four dimensions with twelve main life skills. Moreover, the teacher's guide was reviewed to check the life skills prescribed for them. The checklist was presented to EFL specialists (N= 5) to validate it and select the most appropriate skills for the target pupils.

Based on the EFL specialists' comments, the final list of the life skills necessary for fourth-year primary stage pupils comprised the following seven skills:

Table 3: The most necessary life skills for primary stage pupil

Category	Life skill
(A) Cognitive <i>Learning to know</i>	1- critical thinking
(B) Individual <i>Learning to be</i>	1- communication 2- self- management
(C) Instrumental <i>Learning to do</i>	1- Cooperation 2- Decision- making
(D) Social <i>Learning to live together</i>	1- empathy 2- respect for diversity

These skills were the base for designing the rest of the instruments of the research.

2- Illustrated Situational test for assessing pupils' life skills:

The situational test aimed at assessing the ability of fourth-primary grade pupils to apply language-related life skills in different situations. It assessed their conceptions and employability of the acquired life skills in these situations.

The test was designed in the light of the life skills checklist agreed upon by specialists in the field. An initial version of the test included twenty-one situations- three situations per skill, illustrated with simple pictures. Each situation has three alternatives for the pupils to choose the suitable response. The researcher considered the language level and the characteristics of the participants when structuring the situations and the responses, that is why it was simple and supported with illustrations or pictures to be clear for them. There is one response that was considered correct, where the mastered life skill was applied.

To ensure the test's validity, it was reviewed by a panel of five jurors (N = 5), who assessed the questions based on their alignment with the target skills, suitability for the participants, and clarity of language and suggested any modifications to its questions. The jurors

agreed upon the accuracy and suitability of the situations and the responses. They approved that the test was illustrated with simple pictures that suited the participating pupils. According to the jurors' recommendations, two pictures were substituted with other more explicit ones.

The internal consistency and reliability of the illustrated life skills situational test were estimated through the test pilot administration to (30) fourth-year pupils other than participants in the main research. The results of this pilot study were as follows:

First, internal consistency was assessed using two methods: (a) calculating the correlation coefficient between each question/item score and the total score of the assessed skill. The results are presented in the following table.

Table 4: The correlation between the score of each item and the total score of the skill

Skills	Items	Corr. Coeff.	Skills	Items	Corr. Coeff.
Critical thinking	1	0.899**	Decision- making	1	0.793**
	2	0.834**		2	0.776**
	3	0.752**		3	0.853**
communication	1	0.784**	Empathy	1	0.718**
	2	0.784**		2	0.754**
	3	0.726**		3	0.734**
self-management	1	0.742**	Respect of diversity	1	0.776**
	2	0.725**		2	0.746**
	3	0.845**		3	0.724**
Cooperation	1	0.828**			
	2	0.844**			
	3	0.675**			

** significant at 0.01 level

Table (4) illustrates that the correlation coefficients between the score of each item/ question and the total score of the skill are positive at 0.01 level which supports the valid internal consistency of the Illustrated Situational Life Skills Test.

(b) To determine internal consistency, the correlation coefficient between individual skill scores and the total test score was estimated. The results appear in the following table.

Table 5: The correlation between the score of each skill and the total score of the situational test

Skills	Corr. Coeff.	Sig.
Critical thinking	0.884	0.01
communication	0.804	0.01
self- management	0.825	0.01
Cooperation	0.872	0.01
Decision- making	0.841	0.01
Empathy	0.886	0.01
Respect of diversity	0.901	0.01

Table (5) clearly illustrates that the correlation coefficients were positive and statistically significant at the 0.01 level, suggesting that the test exhibits a high level of internal consistency.

Second, the reliability of the test was also assessed by calculating the Cronbach- Alpha coefficient (α); this illustrates the degree of interrelationship between the test items and their correlation with the total test score. The results are displayed in the following table.

Table (6): Values of Cronbach- Alpha reliability coefficient for the situational test

Skills	No. of items	α
Critical thinking	3	0.773
Communication	3	0.646
Self- management	3	0.659
Cooperation	3	0.686
Decision- making	3	0.732
Empathy	3	0.603
Respect of diversity	3	0.608
Total	21	0.938

With a reliability coefficient of 0.938, the test demonstrates high reliability, confirming its suitability as one of the research instruments for this study.

The time of the test was also calculated by adding up the time spent by all the pupils of the pilot study to complete the test and dividing it by their number (30). Thus, 45 minutes would provide appropriate time for the pupils to answer all the questions.

3- A life skills observation checklist for teachers:

The observation checklist assessed pupils' mastery of life skills in the classroom by their EFL teachers.

The observation checklist was designed in the light of the life skills checklist. It consisted of 39 indicators distributed to the seven life skills, namely, critical thinking (5), communication (6), self-



management (4), cooperation (5), decision-making (5), empathy (5), and respect for diversity (4). Moreover, the checklist included a 4-rating Likert scale that reflects levels of pupils' performance or mastery of the skills: 4- Frequently demonstrates independently, 3- Occasionally demonstrates with minimum support, 2- Occasionally demonstrates with significant support, and 1- Does not demonstrate yet.

The checklist was designed in its initial form and submitted to a group of EFL specialists (N= 5) for validation. The jurors were asked to assess the checklist in terms of the following criteria: (a) suitability of indicators to the skill to which they belong, (b) accuracy and clarity of the wording, and (c) measurability and/or observability of these indicators. Jurors were also asked to give their comments and suggestions. Jurors agreed that the checklist was valid since the criteria mentioned above were mostly met. They also mentioned that the checklist was comprehensive in covering the identified indicators that reflect the specified skills.

To determine the reliability coefficient for the observation checklist, the inter-rater reliability method was applied, involving multiple raters assessing the performance of one individual. Cooper's equation was then used to calculate the agreement between their evaluations.

"Percentage of agreement = (number of times of agreement / (number of times of agreement + number of times of disagreement)) × 100".

The researcher sought the help of the school's EFL teacher after showing her the observation checklist and clarifying its content and instructions. The performances of three pupils were observed, and the agreement coefficient was calculated for each. The table below presents the coefficient of agreement for their performances.

Table 7: Percentages of agreement among the two observers on the checklist

First pupil	Second pupil	Third pupil	Average
88.24%	94.12%	91.18%	91.18%

Results in Table (7) illustrate that the average percentage of agreement between the two observers was 91.18%, which is considered a high percentage. Cooper determined the level of reliability as indicated by the percentage of agreement as follows:

- An agreement percentage that is less than 70% reflects poor reliability of the observation tool.

- An agreement percentage that is 85% or more reflects high reliability.

Consequently, the life skills observation checklist proved reliable and ready for administration to the main research sample.

4- The motivation towards learning scale:

The motivation scale was designed to assess fourth-year primary pupils' motivation towards learning before and after conducting the experimental treatment. The scale included twenty items, which were distributed across four dimensions proposed by Usher and Kober (2012). Each dimension included four positive statements and one negative statement. A 3-point Likert scale (①disagree, ② not sure, ③ agree) was used with emoji faces to express feelings.

Likert scales have proven effective for younger children. The response options are typically limited to three, and the options are shown using pictures instead of words. An example of this is the three-point 'smile gram,' where children check the box under the face that most closely reflects how they feel (Dornyei, 2003).

Six TEFL specialists and psychologists reviewed the scale to assess its validity, focusing on the clarity and appropriateness of the statements. The jurors expressed their approval, indicating that the scale was both clear and appropriate for measuring pupils' motivation to learn life skills.

For the purpose of estimating the construct validity of the scale, a sample of 30 fourth-year primary pupils, distinct from those in the main study, was used for piloting. Internal consistency of the motivation scale was assessed by calculating the correlation coefficient between individual item scores and the total score for each dimension, in addition to determining construct validity (hypothetical consistency) by correlating each dimension's score with the overall scale score. The following tables display the values of the correlation coefficients and their significance levels.

Table (8): Values of correlation coefficients between items of the scale and their correspondent dimensions

Dimensions	Items	Corr. Coeff.	Dimensions	Items	Corr. Coeff.
Competence	1	0.846**	Interest/value	11	0.716**
	2	0.834**		12	0.833**
	3	0.951**		13	0.773**
	4	0.867**		14	0.749**



Dimensions	Items	Corr. Coeff.	Dimensions	Items	Corr. Coeff.
	5	0.776**		15	0.725**
Control/ autonomy	6	0.862**	Relatedness	16	0.801**
	7	0.736**		17	0.783**
	8	0.794**		18	0.621**
	9	0.675**		19	0.464**
	10	0.855**		20	0.741**

As indicated in Table (8), the results reveal that correlation coefficients between the items of the scale and their correspondent dimensions were positive and statistically significant at 0.01 level of significance; and this indicates a strong correlation.

Table 9: Internal consistency coefficients of the scale

Dimensions	Corr. Coeff.	Sig.
Competence	0.953	0.01
Control/autonomy	0.951	0.01
Interest/value	0.944	0.01
Relatedness	0.924	0.01

The data presented in Table (9) show that the correlation coefficients between the scale's dimensions and its total score are positive and statistically significant at the 0.01 level, indicating a high level of internal consistency.

Cronbach's Alpha method was used to assess the reliability of the motivation scale. The resulting values of Cronbach's Alpha for the motivation scale are shown in the following table:

Table 10: Values of Alpha reliability coefficient for the motivation scale

Dimensions	No. of items	α
Competence	5	0.906
Control/ autonomy	5	0.844
Interest/value	5	0.814
Relatedness	5	0.725
Total	20	0.954

Results in Table (10) indicate that the reliability coefficient for the whole scale was 0.954, which reflects that the scale was highly reliable and proved suitable for administration.

Second: Designing the framework of the differentiated SIOP model:

The SIOP model was adapted within a framework where differentiated activities were highlighted and implemented in order to suite both mainstream and special educational needs pupils within the

inclusive primary EFL classroom setting. The same steps of the model were implemented with greater focus on the differentiation step, where various types of differentiated activities such as group work activities, storytelling, role plays, and discussions with the help of varied strategies and materials such as PowerPoint presentations, debates, case studies and short film shows. Differentiation was apparent in content, process, product or the learning environment itself.

A teacher's guide that clarifies the procedures of each lesson according to the differentiated SIOP framework was prepared by the researcher and presented to specialists in the field for revision and proposing any recommendations for improvement. It comprised the eight steps of the model that were implemented throughout the lessons of the three units of Connect 4 English textbook. These steps are outlined as follows:

- 1- **Lesson Preparation:** Preparing and assembling all essential lesson components before delivering it. It consists of the following:
 - ✓ Identify and outline the language, content, and life skills objectives, ensuring they are reviewed with the learners. Language objectives can range from key vocabulary to grammar, language structures, functions, or specific skills.
 - ✓ Identify content concepts in language that is appropriate for the student's developmental stage, background, and readiness level, while also acknowledging pertinent life skills.
 - ✓ Offer supplementary resources including hands-on materials, real-life objects, images, visuals, multimedia, demonstrations, related readings, multiple levels of reading content on the same subject, and adjusted texts.
 - ✓ Adjust texts to make the information accessible to students at different levels, using tools like graphic organizers, outlines, study guides, highlighted passages, recorded readings, adapted text, jigsaw activities, marginal annotations, and charts.
 - ✓ Relevant activities that allow learners to use language in content areas by practicing reading, writing, listening, and speaking. **Differentiated activities** are highlighted here as the teacher prepares various activities that suit various interests and abilities. There

should be more than one activity for pupils to choose from wherever possible.

2. **Building Background:** To teach concepts related to the student's background, connections between prior knowledge and new material are emphasized, with key vocabulary clearly introduced and repeated throughout the learning process.

3. **Comprehensible input** refers to instructional methods designed to ensure that all students, regardless of their English language proficiency, can fully understand the lesson. This entails using speech appropriate to their level, offering clear task explanations, and implementing strategies that enhance lesson comprehension.

4. **Strategies:** Teachers incorporate best practices for ELLs, providing ample time for students to engage with the strategies. **Scaffolding** techniques are applied to aid student learning, and questions are designed to encourage higher-level thinking and critical analysis.

5. **Interaction:** The most effective way for students to learn is through active oral participation. If they can verbalize and explain their thoughts, it indicates they have grasped the concept. Therefore, classroom time should be dedicated to discussion, utilizing strategies like group work, wait- time for reflection, and opportunities to clarify key ideas.

6. **Practice and Application:** Just as babies learn the names of things they can see and touch, hands-on materials are essential for students to comprehend concepts in real-world contexts. They also need sufficient time to reinforce their learning by engaging in reading, writing, listening, and speaking activities.

7. **Lesson Delivery:** Throughout the lesson, the teacher must guarantee that both content and language objectives are achieved, that students remain actively engaged for 90 to 100% of the time, and that the lesson progresses at a pace suitable for their proficiency levels.

8. **Review and Assessment:** The teacher reinforces essential vocabulary and concepts, provides constructive feedback, and checks that the assessments accurately reflect the material covered. Differentiation is apparent at this stage as well. Pupils can be given a choice to express what they have learned in several ways such as drawing, writing a paragraph or a story, making an outline of the lesson, etc.

A detailed menu of SIOP activities (Vogt& Echevarria, 2008), and differentiation activities was prepared by the researcher for teachers to select and adapt appropriate activities that aid them in differentiating either content, process, product, or the learning environment to achieve learning objectives related to language content and related life skills. In addition, materials needed in each activity were provided such as colored cards, sticky notes, PowerPoint presentations, videos and animations, clay sticks, sand, small colored balls, word cards, pictures and pens and pencils.

The experimental intervention:

An equivalent group design with one experimental group and one control group was used in the present research. The following steps were followed:

○ ***Pre-intervention***

At the beginning of the first semester of the academic year 2023/2024, the language-related life skills and motivation of the fourth-year primary stage pupils were assessed prior to the experimental treatment. To ensure homogeneity between the participants of the control and experimental groups, the situational test, language-related life skills observation checklist, and motivation scale were administered to both groups before the treatment was applied. Tables (11), (12), and (13) display whether any significant differences existed between the control and experimental groups in relation to the pre-administration of the research instruments.

Table 11: comparing control and experimental groups on the pre-administration of the life skills situational test

Skills	Groups	N	Mean	Std. D.	t Value	df	Sig.
Critical thinking	Experimental	40	0.58	0.501	0.119	77	Not Sig
	Control	39	0.59	0.595			
communication	Experimental	40	0.63	0.586	0.127	77	Not Sig
	Control	39	0.64	0.537			
self- management	Experimental	40	0.58	0.549	0.755	77	Not Sig
	Control	39	0.67	0.53			
Cooperation	Experimental	40	0.63	0.586	0.91	77	Not Sig
	Control	39	0.51	0.506			
Decision- making	Experimental	40	0.58	0.549	0.09	77	Not Sig
	Control	39	0.56	0.552			
Empathy	Experimental	40	0.73	0.679	0.138	77	Not Sig
	Control	39	0.74	0.498			
Respect of diversity	Experimental	40	0.65	0.622	0.674	77	Not Sig
	Control	39	0.56	0.502			
Total	Experimental	40	4.35	3.06	0.457	77	Not Sig
	Control	39	4.05	2.733			



As shown in Table (11), analysis of the pre-administration mean scores on the life skills situational test revealed no statistically significant difference between the control and experimental group pupils as "t" values were insignificant at (0.05) level of significance.

Table 12: Comparing control and experimental groups on the pre-administration of the life skills observation checklist

Skills	Groups	N	Mean	Std. D.	t Value	df	Sig
Critical thinking	Experimental	40	2.28	0.679	1.197	77	Not Sig
	Control	39	2.1	0.598			
communication	Experimental	40	2.15	0.7	0.152	77	Not Sig
	Control	39	2.13	0.57			
self- management	Experimental	40	2.40	0.672	0.105	77	Not Sig
	Control	39	2.38	0.633			
Cooperation	Experimental	40	2.33	0.764	0.05	77	Not Sig
	Control	39	2.33	0.701			
Decision- making	Experimental	40	2.38	0.705	0.718	77	Not Sig
	Control	39	2.49	0.683			
Empathy	Experimental	40	2.48	0.64	0.813	77	Not Sig
	Control	39	2.36	0.628			
Respect of diversity	Experimental	40	2.40	0.632	0.618	77	Not Sig
	Control	39	2.31	0.694			
Total	Experimental	40	16.4	2.994	0.444	77	Not Sig
	Control	39	16.1	2.954			

Results in Table (12) prove that no statistically significant difference was found between the mean scores of the control and experimental group pupils on the pre-administration of the life skills observation checklist, with "t" values failing to reach significance at the 0.05 level.

Table 13: Comparing control and experimental groups on the pre-administration of the motivation towards learning scale

Dimensions	Groups	N	Mean	Std. D.	t Value	df	Sig
Competence	Experimental	40	6.45	1.239	0.722	77	Not Sig
	Control	39	6.26	1.141			
Control/ autonomy	Experimental	40	7.05	1.449	1.519	77	Not Sig
	Control	39	6.56	1.392			
Interest/value	Experimental	40	6.75	1.296	0.862	77	Not Sig
	Control	39	6.49	1.412			
Relatedness	Experimental	40	6.58	1.196	0.05	77	Not Sig
	Control	39	6.59	1.409			
Total	Experimental	40	26.83	3.381	1.069	77	Not Sig
	Control	39	25.90	4.291			

Table (13) confirms that no statistically significant difference was observed between the mean scores of the control and experimental group students in the pre-administration of the motivation towards learning scale, with "t" values failing to reach significance at the 0.05 level.

Based on the results of the research instruments' pre-administrations, the homogeneity of both the control and experimental groups was established, and any variance in performance could be attributed to the effect of the differentiated SIOP Model.

○ ***The intervention***

The content of the three specified units adapted within the proposed framework of the differentiated SIOP model was applied to the pupils in the experimental group. The control group studied the regular English units from the pupil's book while the experimental treatment was conducted during the first semester of the 2023/2024 academic year. The steps carried out during the experimental treatment were as follows:

- ✓ An orientation session was held for the EFL teacher at school who taught the experimental group. The researcher explained the philosophy of the model, its stages and features, and the nature of differentiated activities to match the learning styles and abilities of the pupils in the inclusive classroom. The researcher also presented the research instruments, especially the life skills observation checklist, to be fully acquainted with them and administer them the right way.
- ✓ The treatment consisted of twelve sessions and an orientation session. Pupils went through the same phases in every session, during which the differentiated SIOP model was utilized. However, the activity or task included in the differentiation phase was not the same in all twelve sessions.

○ **Post-intervention**

Following the experimental treatment, the post-administration of the instruments- the situational life skills test, language-related life skills checklist, and motivation scale- was carried out to evaluate the changes in the pupils' language-related life skills and motivation levels for both the control and experimental groups.

Results:

The results of the study are detailed according to the research hypotheses as shown below:



Testing the first hypothesis:

"t" test for independent groups was used to verify the first hypothesis which is "There is a statistically significant difference between the mean scores of the experimental and control group pupils on the post- administration of the Illustrated life skills situational test in favor of the experimental group". The following table illustrates (t) values and their statistical significance.

Table 14: Comparing the performance of the control and experimental groups on the post-administration of the life skills situational test

Skills	Groups	N	Mean	SD	t Value	Df	Sig.
Critical thinking	Experimental	40	2.90	0.304	15.39	77	0.01
	Control	39	1.46	0.505			
communication	Experimental	40	2.75	0.439	13.74	77	0.01
	Control	39	1.33	0.478			
self- management	Experimental	40	2.75	0.439	11.39	77	0.01
	Control	39	1.54	0.505			
Cooperation	Experimental	40	2.85	0.362	14.73	77	0.01
	Control	39	1.41	0.498			
Decision- making	Experimental	40	2.85	0.362	14.08	77	0.01
	Control	39	1.46	0.505			
Empathy	Experimental	40	2.88	0.335	14.14	77	0.01
	Control	39	1.51	0.506			
Respect of diversity	Experimental	40	2.88	0.335	13.9	77	0.01
	Control	39	1.54	0.505			
Total	Experimental	40	19.85	1.594	27.39	77	0.01
	Control	39	10.26	1.517			

Table (14) indicates that the experimental group pupils scored higher than the control group in the seven language-related life skills and in the overall total. Additionally, the t-values are all significant at the 0.01 level, which demonstrates a statistically significant difference between the experimental and control groups in the individual skills and overall score on the post-administration of the life skills situational test, with the experimental group showing superior results. To put it another way, the experimental group pupils surpassed their control group peers in language-related life skills, as measured by the situational test. Therefore, the first hypothesis is verified and accepted.

Testing the second hypothesis:

The second hypothesis, which states, "There is a statistically significant difference between the mean scores of the experimental group pupils on the pre-and post-administrations of the life skills

situational test in favor of the post-administration," was tested using a t-test for dependent samples. The results are shown in Table (15).

Table 15: Comparing the performance of the experimental group on the pre-and post- administrations of the life skills situational test

Skills	Measurement	N	Mean	SD	t Value	Df	Sig.	η^2
Critical thinking	Pre	40	0.58	0.501	22.42			0.928
	Post		2.9	0.304				
communication	Pre	40	0.63	0.586	16.34			0.873
	Post		2.75	0.439				
self- management	Pre	40	0.58	0.549	19.32			0.905
	Post		2.75	0.439				
Cooperation	Pre	40	0.63	0.586	21.33	39	0.01	0.921
	Post		2.85	0.362				
Decision- making	Pre	40	0.58	0.549	20.11			0.912
	Post		2.85	0.362				
Empathy	Pre	40	0.73	0.679	18.49			0.898
	Post		2.88	0.335				
Respect of diversity	Pre	40	0.65	0.622	21.33			0.921
	Post		2.88	0.335				
Total	Pre	40	4.35	3.06	26.49			0.947
	Post		19.85	1.594				

According to Table (15), the t-value is significant at the 0.01 level for each specific skill and the total score, demonstrating a statistically significant difference between the pre- and post-administration mean scores of the experimental group pupils on the life skills situational test, with the post-administration showing superior results due to the differentiated SIOP model. Furthermore, the table demonstrates that the effect size of the differentiated SIOP model on the specific life skills of the experimental group pupils was high. As a result, the t-values, along with the effect size, reinforced the positive impact of the differentiated SIOP model on the pupils' language-related life skills, confirming and accepting the second research hypothesis.

Testing the third hypothesis:

Results for the third hypothesis, which investigated the difference in mean scores between the control and experimental groups on the post-administration of the language-related life skills observation checklist, are shown in the following table.



Table 16: Comparing the performance of the control and experimental groups on the post-administration of the life skills observation checklist

Skills	Groups	N	Mean	SD.	t Value	Df	Sig.
Critical thinking	Experimental	40	18.05	0.714	53.67	77	0.01
	Control	39	6.59	1.141			
communication	Experimental	40	19.35	1.642	25.58	77	0.01
	Control	39	10.1	1.569			
self- management	Experimental	40	14.08	0.73	51.34	77	0.01
	Control	39	4.54	0.913			
Cooperation	Experimental	40	17.05	1.358	40.39	77	0.01
	Control	39	5.69	1.127			
Decision- making	Experimental	40	16.35	1.477	32.86	77	0.01
	Control	39	5.41	1.482			
Empathy	Experimental	40	16.6	1.374	39.09	77	0.01
	Control	39	5.28	1.191			
Respect of diversity	Experimental	40	13.65	1.122	40.36	77	0.01
	Control	39	4.46	0.884			
Total	Experimental	40	115.13	4.127	74.83	77	0.01
	Control	39	42.08	4.544			

As shown in Table (16), the mean scores for the experimental group pupils in the seven language-related life skills and the overall score surpass those of the control group. Furthermore, all t-values are significant at the 0.01 level, reflecting a statistically significant difference between the experimental and control groups in individual skills and the total score on the post-administration of the life skills observation checklist, in favor of the experimental group. To put it differently, the experimental group pupils performed better than the control group pupils in language-related life skills, as measured by the observation checklist. Therefore, the third hypothesis was validated and accepted.

The fourth hypothesis stated that “There is a statistically significant difference between the mean scores of the experimental group pupils on the pre-and post- administrations of the life skills observation checklist in favor of the post-administration.”. In order to verify this hypothesis, the researcher used “t” test for dependent groups to identify the significance of differences between the mean scores of the experimental group pupils on the pre-and post-administrations of the observation checklist. The following table illustrates (t) values and their statistical significance.

Table 17: Comparing the performance of the experimental group on the pre-and post- administrations of the life skills observation checklist

Skills	Measurement	N	Mean	SD.	t Value	df	Sig	η ² (
Critical thinking	Pre	40	2.28	0.679	102.47	39	0.01	0.928
	Post		18.05	0.714				
communication	Pre	40	2.15	0.7	68.49	39	0.01	0.873
	Post		19.35	1.642				
self- management	Pre	40	2.4	0.672	76.04	39	0.01	0.905
	Post		14.08	0.73				
Cooperation	Pre	40	2.33	0.764	59.37	39	0.01	0.921
	Post		17.05	1.358				
Decision- making	Pre	40	2.38	0.705	55.48	39	0.01	0.912
	Post		16.35	1.477				
Empathy	Pre	40	2.48	0.64	59.35	39	0.01	0.898
	Post		16.6	1.374				
Respect of diversity	Pre	40	2.4	0.632	52.55	39	0.01	0.921
	Post		13.65	1.122				
Total	Pre	40	16.4	2.994	122.7	39	0.01	0.947
	Post		115.13	4.127				

As indicated in Table (17), there is a statistically significant difference between the mean scores of the experimental group pupils on the pre- and post-administrations of the life skills observation checklist, with the post-administration showing higher scores. The mean score of the post-administration was (115.13) for the total score of the scale, which is a high value when compared to the Mean of the pre-administration (16.4). The values of "t" were statistically significant at (0.01) level; a result that indicates that the differentiated model was effective in developing life skills for the targeted sample. Consequently, the fifth hypothesis was accepted.

To examine the impact of the treatment, i.e. the differentiated SIOP model on developing life skills of primary stage pupils in an EFL inclusive classroom, the effect size using (η²) was estimated. According to the data in Table (18), the effect size of the treatment was 0.947, which is considered high, given that the effect size ratio should be at least 0.14. This suggests that 94.7% of the variance in pupils' life skills performance can be attributed to the impact of the differentiated SIOP model. Concerning each of the seven life skills, the effect ratio ranged between (0.873 and 0.928) which is considered a high effect as well.

Hypothesis five stated that “There is a statistically significant difference between the mean scores of the experimental and control group pupils on the post- administration of the motivation towards



learning scale in favor of the experimental group”. In order to verify the fifth hypothesis, the researcher used "t" test for independent groups to assess the significance of the differences in mean scores between the experimental and control group pupils on the post-administration of the motivation scale. The following table illustrates (t) values and their statistical significance.

Table 18: Comparing the performance of the control and experimental groups on the post-administration of the motivation scale

Dimensions	Groups	N	Mean	SD	t Value	Df	Sig
Competence	Experimental	40	13.68	0.656	26.78	77	0.01
	Control	39	8.51	1.023			
Control/autonomy	Experimental	40	13.65	0.662	22.2	77	0.01
	Control	39	8.08	1.44			
Interest/value	Experimental	40	13.40	0.841	21.19	77	0.01
	Control	39	8.23	1.287			
Relatedness	Experimental	40	13.38	0.979	20.7	77	0.01
	Control	39	7.85	1.368			
Total	Experimental	40	54.10	2.58	35.25	77	0.01
	Control	39	32.67	2.822			

It is apparent that a statistically significant difference exists between the mean scores of the experimental and control groups on the post-administration of the motivation scale, with the experimental group outperforming the control group. The mean score for the experimental group was 54.1, while the control group's mean score was 32.67. At the 0.01 level of significance, the "t" values were statistically significant in favor of the experimental group, for both the total score and the scores on the four component dimensions. As a result, the fifth hypothesis was accepted.

The sixth hypothesis stated that “There is a statistically significant difference between the mean scores of the experimental group pupils on the pre- and post- administrations of the motivation scale in favor of the post one”. To verify this hypothesis, the researcher used "t" test for dependent groups to determine the significance of differences between the mean scores of the experimental group pupils on the pre- and post- administrations of the motivation scale. The following table illustrates these results.

Table 19: comparing performance of the experimental group on the pre- and post- administrations of the motivation scale

Dimensions	Measurement	N	Mean	SD	tValue	Df	Sig	η^2
Competence	Pre	40	6.45	1.239	31.71	39	0.01	0.963
	Post		13.68	0.656				
Control/ autonomy	Pre	40	7.05	1.449	28.18	39	0.01	0.953
	Post		13.65	0.662				
Interest/ value	Pre	40	6.75	1.296	28.14	39	0.01	0.953
	Post		13.4	0.841				
Relatedness	Pre	40	6.58	1.196	27.64	39	0.01	0.951
	Post		13.38	0.979				
Total	Pre	40	26.83	3.381	40.66	39	0.01	0.977
	Post		54.1	2.58				

As indicated in Table (19), a statistically significant difference exists between the mean scores of the experimental group pupils on the pre- and post-administrations of the motivation scale, with the post-administration showing higher scores. The mean score for the post-administration was 54.1, significantly higher than the pre-administration mean of 26.83. The values of "t" were statistically significant at (0.01) level; a result that indicates that the model was effective in developing motivation towards learning life skills for the targeted sample. Consequently, the fifth hypothesis was accepted.

To examine the impact of the treatment, i.e. the differentiated SIOP model on developing motivation towards learning life skills of primary stage pupils in an EFL inclusive classroom, the effect size using (η^2) was estimated. Statistics in Table (20) illustrate that the effect size of the treatment as a whole was (0.977), which is a high ratio where the effect ratio should equal or surpass a value of (0.14). These statistics can be interpreted that (97.7%) of the variance in the pupils' motivation to learn life skills as a whole can be attributed to the effect of implementing the differentiated SIOP model. Concerning each of the four dimensions of motivation, the effect ratio ranged between (0.951 and 0.963) which is considered a high effect as well.

To verify **the seventh hypothesis** which states that "There is a positive correlation between fourth- year primary pupils' life skills and their motivation towards learning them", the researcher used a simple Pearson correlation coefficient to estimate the correlation coefficient between the scores of the experimental group pupils on the post-administrations of the situational test, the life skills observation checklist, and the motivation scale. The following table illustrates value of the correlation coefficient of Pearson and its statistical significance:



Table 20: Pearson's correlation coefficients between life skills and motivation towards learning them

r	Situational test	Observation Checklist	Motivation scale
Situational test	1		
Observation Checklist	0.947**	1	
Motivation scale	0.922**	0.955**	1

Statistics in Table (20) indicate that there is a positive direct correlation between the experimental group's scores in the post-administrations of the life skills situational test, life skills observation checklist, and motivation towards learning life skills motivation scale as values of (r) were statistically significant at 0.01 level. Consequently, the seventh hypothesis was accepted as there proved to be a positive correlation between life skills and motivation towards learning them.

Discussion:

The current research attempted to investigate the effect of implementing a differentiated SIOP model for developing life skills and motivation towards learning them of primary stage pupils in an inclusive EFL classroom. The results revealed a statistically significant difference at (0.01) level between the mean scores of the experimental and control groups' pupils on the post-administration of the life skills situational test and observation checklist in favor of the experimental group. Moreover, a statistically significant difference was found between the mean scores of the experimental group pupils on the pre- and post-administrations of the life skills situational test and the observation checklist, favoring the post-administration. This means that the life skills of primary stage pupils in an inclusive EFL classroom improved as a result of applying the differentiated SIOP model. Furthermore, the results demonstrated a statistically significant difference at the 0.01 level between the mean scores of the experimental and control group pupils on the post-administration of the motivation towards learning scale, with the experimental group showing higher scores. There was also a statistically significant difference between the pre- and post-administrations of the motivation scale for the experimental group, favoring the post-administration. Finally, the study highlighted a positive correlation between life skills and motivation and that increased motivation can contribute much to enhancing life skills and vice versa.

The present research provides evidence for the effectiveness of using a differentiated SIOP model as a framework for teaching and developing the life skills of primary pupils in an inclusive EFL classroom setting and their motivation towards learning them. The findings of the current research corroborate the previous relevant studies that investigated the effect of using SIOP model on developing various skills and learning dimensions such as developing reading comprehension (Nichols, 2012), improving teaching effectiveness and thus improving students' writing, oral language and total English scores (Short, Fidelman& Louguit, 2012; Koura& Zahran, 2017), and improving reading fluency (Gates& Feng, 2018).

The achieved results could be attributed to the benefits of incorporating the differentiated SIOP model as a research-validated model for developing professional development for teachers and consequently leads to student learning improvement. It has very useful features that aid teachers to achieve high levels of performance in the targeted competence. Its systematic procedures and specific features help teachers identify and organize their work in the classroom, enable them to be aware of their objectives to be achieved in a very concise manner.

Generally speaking, pupils who participated in the research expressed their satisfaction with and enthusiasm about the way they have been taught life skills in the EFL classroom. They found it different, encouraging, interesting, and suitable for their abilities. They were especially interested in the idea of having the opportunity to choose the task they like to perform. Further, the various activities implemented in the class enabled them to interact together and understand life skills and learn the value of implementing them in various situations. In addition, their motivation towards learning life skills increased as the integrated activities agitated their enthusiasm to participate and show their full potential in achieving high levels of thinking and learning.

The differentiated SIOP model was convenient and systematic which enabled the teacher to implement it easily and be able to achieve the lesson objectives that comprise language, content and life skills objectives. Once the teacher plans his lessons in accordance with the differentiated SIOP framework, it becomes easy for him to apply it. However, the teacher complained about the lengthy steps of the model and the features of each step where she became confused. The researcher prepared a teacher's guide where every step was thoroughly explained and illustrated with examples and pictures to overcome that

obstacle. Classroom and time management were challenging for the teacher. However, when pupils got engaged in the activities and got motivated to learn and participate in interesting activities as they match their abilities, the issue of classroom and time management become manageable for the teacher. Further, pupils with learning difficulties were engaged in learning and participating in every activity designed for them because these activities matched their abilities and interests as well. The atmosphere of the classroom reflected the life skills being developed; empathy, cooperation, respect, self-management and communication were apparent and prevailing throughout the experiment.

Conclusions:

In conclusion, life skills are becoming an essential field of study and mastery in all educational stages; they are being integrated into curricula. However, there is no specific plan or process for teaching them within the framework of everyday language lessons. Moreover, pupils may lack motivation to learn them as they do not recognize their value and relatedness to their study. In addition, primary-stage classrooms in most schools all over the republic of Egypt have inclusion pupils who are in dire need of engagement within the teaching process and have activities and assignments that match their abilities and interests. The SIOP model represents a validated tool that can be utilized with the support of differentiated instruction to meet the needs of those pupils and aids the teachers in their challenging task of designing inclusive and differentiated lessons at the same time.

Recommendations:

Considering the results of this research, the following recommendations are offered:

- 1- Much attention should be directed to orienting students in general and primary stage pupils in particular in life skills as it is an inevitable demand in the current age and significant for those pupils in the childhood period when their characters are being formulated.
- 2- Curriculum planners and designers should provide teachers with specific procedures and multiple alternatives for planning and presenting their lessons, allowing for creativity. The differentiated SIOP model is a great instrument for achieving this goal.

-
- 3- Professional development programs should be constantly provided for EFL teachers, especially those who teach special needs pupils within the inclusive classroom context. They need specific procedures and techniques to achieve their teaching objectives and also achieve the utmost benefit for those pupils to learn through motivating and engaging them in learning.
 - 4- Researchers should shed more light on differentiated instruction and systematic teaching models that help teachers save effort through concise and precise procedures and provide opportunities for teachers to show their creativity in teaching.

Suggestions for further research:

Based on the results and recommendations of the current research, the following research topics are suggested:

- Investigating the impact of the SIOP model on developing various language skills in the primary stage.
- The impact of the SIOP model as a professional development approach on developing EFL teachers' creative teaching competence.
- Investigating the effect of AI applications on developing language skills in inclusive classrooms.
- Investigating the effect of other innovative approaches in teaching special educational needs students in various educational stages.



References

- Abuhamdeh, S.; Csikszentmihalyi, M. & Jalal, B. (2014). Enjoying the possibility of defeat: Outcome uncertainty, suspense, and intrinsic motivation, *Motivation and Emotion*, 39(1).
- Al Fadda, H. (2020). Implementation of the Sheltered Instructional Observation Protocol (SIOP) Model in the Saudi Classroom: EFL Teachers' Perspectives, *Arab World English Journal (AWEJ)*, 11 (2), 339- 360.
- Amirian (2012). Effect of Life Skills Education on Academic Achievement of First Year High School Male Students. *European Psychiatry*, 27, Supplement 1.
- Anuradha, K. (2012). Life Skills and Self Concept of Adolescents *International Journal of Science and Research (IJSR)*, 3(11).
- Bailey, S., & Deen, M. (2002). Development of a web-based evaluation system: A tool for measuring life skills in youth and family programs. *Future Relations*, 51(2), 138-147.
- Bakley, E. (2007). "Sheltered instruction observation protocol (SIOP): a model for English language learners". *Graduate Research Papers*. 300.
- Bardhan, A. (2016). Life Skills Education: A Strategy for Handling Adolescents' Risk Behavior. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, 21 (7), Ver. V.
- Bharath, S. & Kumar, K. (2010). Empowering adolescents with life skills education in schools – School mental health program: Does it work? *Indian Journal of Psychiatry*, 52 (4): 344-349. Available from: https://www.researchgate.net/publication/49785786_Empowering_adolescents_with_life_skills_education_in_schools_-_School_mental_health_program_Does_it_work
- Bondy, E., Ross, D., Galligane, C., & Hambacher, E. (2007). Creating environments of success and resilience: Culturally responsive classroom management and more. *Urban Education*, 42(4), 326-348.
- Boughoulidi, M. (2020). The SIOP model as an empowering Teaching method for English language Learners - a study case. *European Journal of English Language Teaching*, 6 (2), 39-53.
- Bower, Kim (2017). Explaining motivation in language learning: a framework for evaluation and research. *Language Learning*

-
- Journal*. Available from Sheffield Hallam University Research Archive (SHURA) at: <http://shura.shu.ac.uk/15598/>.
- Brown, H. (1994). *Principles of language learning and teaching* (3rd ed.). New Jersey: Prentice Hall Regents
- Central Board of Secondary Education. (2013). *Teacher's manual life skills class VI*. Delhi, India.
- Chandler, P. (2020). "Implementing The SIOP Model to Support English Language Learners". *All Theses and Dissertations*. 315. <https://dune.une.edu/theses/315>.
- Dange, J. (2016). Life skills: A Research Based Model. *International Journal of English language, literature, and Humanities*, 4 (7), 199- 213.
- Dixon, F. A., Yssel, N., McConnell, J. M., & Hardin, T. (2014). Differentiated instruction, professional development, and teacher efficacy. *Journal for the Education of the Gifted*, 37(2), 111-127.
- Dörnyei, Z. (1994). Motivation and motivating in the foreign language classroom. *The Modern Language Journal*, 78(3), 273-284.
- Dörnyei, Z. (2003). *Questionnaires in Second Language Research: Construction, Administration, and Processing*. Lawrence Erlbaum Associates, Inc, Mahwah: New Jersey.
- Dörnyei, Z. (2019). Towards a better understanding of the L2 Learning Experience, the Cinderella of the L2 Motivational Self System. *Studies in Second Language Learning and Teaching*, 9 (1).
- Duerden, M. D., & Witt, P. A. (2011). Assessing the Need for the Development of Standardized Life Skills Measures. *The Journal of Extension*, 49(5), Article 21. <https://tigerprints.clemson.edu/joe/vol49/iss5/21>
- Dutton, M. (2022). *Connect Primary4- Teacher's Guide*. Cairo: Egyptian International Publishing Company- Longman.
- Echevarría, J., & Graves, A. (2007). *Sheltered Content Instruction: Teaching English Learners with Diverse Abilities* (4th ed.). Pearson Education.
- Echevarria, J, & Short, D. (2000). Using Multiple Perspectives in Observations of Diverse Classrooms. *Observational Research in US*, 25.
- Echevarría, J., Short, D. J., & Vogt, M. (2008). *Implementing the SIOP Model Through Effective Professional Development and Coaching*. Pearson Education.
-



- Echevarria, J., Vogt, M., & Short, D. J. (2017). *Making Content Comprehensible for English Learners: SIOP* (5th ed). Pearson Education. (2004, 2008)
- Fitzpatrick, S. (2014). Priorities for Primary Education? From Subjects to Life Skills and Children's Social and Emotional Development. *Irish Educational Studies*, 33(3): 269- 286.
- Gates, A.& Feng, J. (2018). Improving ELL Reading Fluency: The SIOP Model and Its Effect. *Georgia Educational Research Association Conference*. 54.
- Gregory, G.& Chapman, C. (2013). *Differentiated Instructional Strategies-One Size Doesn't Fit All*, 3rd ed. CA: Corwin
- Gutman, L.& Schoon, I., (2013). The impact of non-cognitive skills on outcomes for young people. *Education Endowment Foundation*, 59(22.2), p.2019.
- Harmer, J. (1991). *The practice of English language teaching*. London and New York: Longman.
- Hendricks, A. (1996). Targeting Life Skills Model. Iowa State University Extension. Ames, IA. www.extension.iastate.edu/4H/lifeskills/homepage.html
- Hendricks, P. (1996). Developing Youth Curriculum Using the Targeting Life Skills Model: Incorporating developmentally appropriate learning opportunities to assess impact of life skill development. Ames, Iowa: Iowa State University.
- Hendricks, A. (1998). *Developing Youth Curriculum Using the Targeting Life Skills Model Incorporating Developmentally Appropriate Learning Opportunities to Assess Impact of Life Skill Development*. IOWA State University.
- Hoskins, B.& Liu, L. (2019). *Measuring life skills in the context of Life Skills and Citizenship Education the Middle East and North Africa*: United Nations Children's Fund (UNICEF) and the World Bank.
- Kaplan, M. & Miller, A. T. (Eds.). (2007). Special Issue: Scholarship of multicultural teaching and learning. *New Directions for Teaching and Learning*, (111).
- Kiran, S., Seshadri, S., & Thomas, K. (2007). Developing a life skills program for educationalists using experiential methodologies. *The International Journal on School Disaffection*, 4(2), 22-27.

-
- Koc, R. (2016). A Research Review of the SIOP Model: Its Definition, Factors Affecting its Success, and Challenges Faced by Educators. *Education Masters*. Paper 330.
- Koura, A.& Zahran, F. (2017). The Impact of Sheltered Instruction Observation Protocol Model on Student Teachers' Teaching Skills and Self-efficacy, *Journal of Language Teaching and Research*, 8 (4), 704-714.
- Kumar, J. (2021). Inclusive Education: Meaning, Types of Learning Disabilities & Teaching Strategies. In M. Dwivedi& P. Srivastava (Eds.). *Creating Inclusive Classrooms*, Sunrise Publications, Delhi.
- Kumar, P. (2017). Morality and Life skills: The need and importance of life skills education. *International Journal of Advanced Education and Research*, 2 (4), 144-148.
- Lai, E.R. (2011). Motivation: A Literature Review. Pearson Research Report.
- Mahender, G. (2022). Integrating life skills through ESL learning activities. *Research Journal of English Language and Literature (RJELAL)*, 10(3), 141-145.
- Malik, A. et al. (2012). Effect of Life Skills Training on Academic Anxiety, Adjustment and Self Esteem Levels in Early Adolescents. *Journal of the Indian Academy of Applied Psychology*, 38.
- McIntyre, E., Kyle, D., Chen, C. T., Muñoz, M., & Beldon, S. (2010). Teacher learning and ELL reading achievement in sheltered instruction classrooms: Linking professional development to student development. *Literacy Research and Instruction*, 49(4), 334–351.
- Miao, X. X., & Wang, P. C. (2023). A Literature Review on Factors Affecting Motivation for Learning Arabic as a Foreign Language. *Open Journal of Social Sciences*, 11, 203-211.
- Mincemoyer, C., & Perkins, D.F. (2003). Assessing decision making skills of youth. *The Forum for Family and Consumer Issues* [On-line], 8(2). Available at: <http://ncsu.edu/ffci/publications/2003/v8-n1-2003-january/ar-1-accessing>.
- Mostafa, R., Dadour, E., & Al-Shafei, A. (2016). Developing life skills in the Egyptian curriculum at the primary stage. *Journal of Research in Curriculum, Instruction and Educational Technology*, 2(1), 43-62.



- Murray, A. (2011). Montessori elementary philosophy reflects current motivation theories. *Montessori Life*, 23(1), 22-33.
- Nichols, S. L. (2012). *Examining the effects of the Sheltered Instruction Observation Protocol model on the reading comprehension of first grade students* [Graduate Theses and Dissertations.]. <https://lib.dr.iastate.edu/etd/12922>
- Nivedita, A.& Singh, B. (2016). Life Skills Education: Needs and Strategies. *Scholarly Research Journal for Humanity Science English Language*, 3(16), 3800-3806.
- Nqabeni, P.& Cishe E. (2023). Integrating Life Skills Learning and Teaching Support Materials into Teachers' Teaching Strategies, *E-Journal of Humanities, Arts and Social Sciences*, 4(6), 744-753
- Nurbatra, L., Masyhud, M., & Hartono, H. (2022). Learning Life Skills through English Materials: Integrating Life Skills in English Pedagogy. *ASEAN Journal of Community Engagement*, 6(2), 262-277.
- O'Dwyer, S. (2013). Resilience in family carers of people with dementia: A pilot qualitative study. *Aging and Mental Health*, 17(3).
- Osuafor, M. Abigail & Okigbo, C. Ebele. (2013). Effect of differentiated instruction on the academic achievement of Nigerian secondary school biology students. *International Research Journals*, 4 (7), 555-560.
- Parry, C.& Nomikou, M. (2014). Life Skills, Developing Active Citizens British Council Greece, training material of the Ministry of Education and Religious Affairs for the 5th and 6th grade of Primary School, The Institute of Educational Policy (IEP).
- Pham, T. (2021). Attitude and Motivation in Language Learning: A Review. *Journal of English Language Teaching and Applied Linguistics*, 3(5), 64- 72.
- Pintrich, P. R. (2003). A motivational science perspective on the role of student motivation in learning and teaching contexts. *Journal of Educational Psychology*, 95(4), 667-686.
- Pishghadam, R., & Zabihi, R. (2012). Establishing a life-language model of proficiency: A new challenge for language testers. *Iranian Journal of Language Testing*, 2(2), 93-108.

- Putra, E. D., Cho, S., & Liu, J. (2017). Extrinsic and Intrinsic Motivation on Work Engagement in the Hospitality Industry: Test of Motivation Crowding Theory. *Tourism and Hospitality Research*, 17, 228-241.
- Rahman, A., Shah, A. A., & Salam, A. (2023). Development and Psychometric Evaluation of Life Skills Scale: An Indigenous Approach. *Global Social Sciences Review*, VIII(I), 193-203.
- Rani, R. & Menka, M. (2019). Life skills education: Concern for educationists for holistic development of adolescents. *Paripex - Indian Journal of Research*, 8 (1), 31-32.
- Richard, C., & S. Rodgers. (2001). *Approaches and Methods in Language Teaching*. Cambridge: Cambridge University Press.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78.
- Saputra, S., Sutarman, & Syamsurrijal. (2020). Designing Life Skill-Based English Reading Materials for Second Grade Students of SMA Negeri 1 Pringgasela. *Humanities Journal on Language and Literature*, 6(2), 297-322.
- Sheikh, M. (2015). *Core life skill education: relevance and importance*. A two-day national seminar on quality concerns in higher education. IQAC and School of Education, Central University of Kashmir in collaboration with NAAC, 10th & 11th September.
- Shivani & Kaur, K. (2020). Effect of Sheltered Instruction Observation Protocol Model on Students' Achievement and Language Creativity: A Review. *International Journal of Arts, Humanities, and Management Studies*, 6 (6).
- Short, D. J. (2017). How to integrate content and language learning effectively for English language learners. *Eurasia Journal of Mathematics, Science and Technology Education*, 13(7), 4237-4260.
- Short, D. J., Fidelman, C. G., & Louguit, M. (2012). Developing Academic Language in English Language Learners through Sheltered Instruction. *TESOL*, 46(2), 334- 361. <https://doi.org/10.1002/tesq.20>
- Simpkins, P. M., Mastropieri, M. A., & Scruggs, T. E. (2009). Differentiated curriculum enhancements in inclusive fifth-grade science classes. *Remedial and Special Education*, 30(5), 300-308.



- Song, K. (2016). Applying an SIOP-Based Instructional Framework for Professional Development in Korea, *TESL-EJ*, 20 (1), 1-26.
- Suryasa, W.; Prayoga, G. & Werdistira, W. (2017). An analysis of students' motivation toward English learning as second language among students in Pritchard English academy (PEACE). *International Journal of Social Sciences and Humanities*, 1(2), 43-50.
- Takahashi, T. (2018). Motivation of students for learning English in Rwandan schools. *Issues in Educational Research*, 28(1), 168-186.
- Tan, S. (2018). Life Skills Education: Teachers' Perceptions in Primary School Classrooms in Finland and Singapore. Master's Thesis in Education. Department of Education, University of Jyväskylä.
- Tobin, R., & McInnes, A. (2008). Accommodating differences: Variations in differentiated literacy instruction in Grade 2/3 classrooms. *Literacy*, 42(1), 3-9.
- Tomlinson, C. A. (2000). Reconcilable differences: Standards-based teaching and differentiation. *Educational Leadership*, 58(1), 6-11.
- Tomlinson, C. A. (2001). *How to Differentiate Instruction in Mixed-Ability Classrooms*, 2nd ed., Alexandria, VA: Association for Supervision and Curriculum Development (ASCD).
- Tomlinson, C. A. (2005). Differentiating instruction: Why bother? *Middle Ground*, 9, 12-14.
- Tomlinson, C. A. & Imbeau, M. (2010). *Leading and managing a differentiated classroom*. Alexandria, VA: ASCD.
- Tomlinson, C. A., & Jarvis, J. (2009). Differentiation: Making curriculum work for all students through responsive planning and instruction. In J. S. Renzulli, E. J. Gubbins, K. S. McMillen, R. D. Eckert & C. A. Little (Eds.), *Systems and models for developing programs for the gifted and talented* (pp. 599-628). Storrs, CT: Creative Learning Press.
- UNESCO. (2010). Contributing to a More Sustainable Future: Quality Education, Life Skills, and Education for Sustainable Development. Paris: UNESCO. Division for Promotion of Quality Education. Education Sector.

- UNICEF. (2006). For Every Child: Health, Education, Quality, Protection, Advance, Humanity, which skills are life skills? Module 7: Life skills. Retrieved online on 12/12/2022 from https://www.unodc.org/pdf/youthnet/action/message/escap_peers_07.pdf.
- UNICEF. (2012). Global Evaluation of Life Skills Education Programs. New York: United Nations Children's Fund.
- UNICEF and partners (2017). Reimagining Life Skills and Citizenship Education in the Middle East and North Africa: A Four-Dimensional and Systems Approach to 21st Century Skills. Conceptual and Programmatic Framework.
- Unrau, N.& Schlackman, J. (2016). Motivation and its Relationship with Reading Achievement in an Urban Middle School. *The Journal of Educational Research*, 100(2), 81-101.
- Usher, A.& Kober, N. (2012). What Is Motivation and Why Does It Matter? Center on Education Policy, The George Washington University, Graduate School of Education and Human Development. *ERIC Document Reproduction Services*, ED532670
- Valiandes, S. (2015). Evaluating the impact of differentiated instruction on literacy and reading in mixed ability classrooms: Quality and equity dimensions of education effectiveness. *Studies in Educational Evaluation*, 45, 17-26.
- Vogt, M. E.& Echevarria, J. (2008) 99 Ideas and activities for teaching English learners with the SIOP Model, Pearson Education.
- Walters, A. (2023). Exploring the effectiveness of the Sheltered Instruction Observation Protocol (SIOP) model. M.A. Thesis, State University of New York at Fredonia, New York.
- Webster, T. (2014). The Inclusive Classroom. *BU Journal of Graduate Studies in Education*, 6 (2), 23- 26.
- W.H.O. (1997). Skills for Health, Skills-based health education including life skills: An important component of a Child-Friendly/Health-Promoting School, Meaning of Life Skills. www.who.org.
- Wiedemann, N. (2013) (Ed.). *Life Skills – Skills for Life: A handbook*, International Federation of Red Cross and Red Crescent Societies, Reference Centre for Psychosocial Support, Copenhagen, Denmark.