

The Implementation of Personalised Learning to Teach English in Malaysian Low-Enrolment Schools

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Abstract. The implementation of personalised learning in teaching English has become one of the effective approaches to cater learners' needs in education. The educators in Malaysia, as in many countries, are interested in exploring the implementation of personalised learning in their lessons. However, the study on personalised learning to teach English in Malaysian schools is scarce. The prevalence of low academic achievement, especially in rural and low-enrolment schools, has led to teacher reluctance to adopt personalised learning approaches, potentially denying students the vital benefits of tailored education essential for their future success and development. Hence, this study aims to explore the implementation of personalised learning to teach English, particularly in Malaysian low-enrolment schools, as well as the challenges and ways to overcome the challenges. Personalised learning is implemented based on the Self-Determination Theory in this study. This qualitative research used a narrative approach via oral history. Purposive and convenience sampling were used to select a total of four participants for this study. Online semi-structured interviews were conducted with the participants to collect the data. The result analysis was trifold, including data transcription, data coding and data analysis to explore the research questions. Findings show that the implications of personalised learning in low-enrolment schools, grounded in the principles of Self-Determination Theory, are vast and promising. Personalised learning in English language education has the potential to transform Malaysia's educational landscape by nurturing intrinsic motivation, enhancing language skills, engaging students culturally, supporting teacher development, and fostering systemic changes, ultimately improving academic achievement, engagement, and well-being.

1 Introduction

The success of learning English depends on both internal and external elements since it is a language that is taught across borders. As English has become a global lingua franca [1], the demand for English language proficiency has grown significantly. English teaching in the global context encompasses various settings, such as schools, language institutes,

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universities, and online platforms. Numerous aspects have been researched throughout the years in an effort to comprehend, pinpoint, and enhance language teaching techniques in language schools around the world. It is obvious that some language learners are able to pick up a language with ease, while others have less success in doing so.

Particularly in schools with low enrolment, the learning gap between urban and rural students is much more pronounced. Low-enrolment schools (LES), also known as schools with low student populations, are a global challenge that can be found in various regions and countries [2]. These schools typically have a smaller number of students compared to larger schools in the same area. The reasons for low enrolment can vary depending on the context and specific factors affecting the school and its surrounding community. Based on PPPM 2013-2025, low-enrolment schools (LES) are considered as schools with a small enrolment of students. These schools consist of fewer than 150 students [3], and students from various age groups and academic levels are typically enrolled in the same class [4]. As for teachers in these schools, they are expected to teach more than one subject in LES, due to the shortage of teachers in the school [5]. Hence, LES have a small student-teacher population, which community consisted from diverse backgrounds.

LES face a range of challenges that can negatively impact the quality of education the teachers could possibly provide. The problems associated include lack of motivation in learning, limited resources, teacher burnout and shortages and limited social opportunity [6]. Thus, this research is intended to highlight how low enrolment school teachers could use personalised learning as an alternative method in the teaching and learning process in order to increase students' motivation and interest in learning language and to cater for their needs in completing their formal education.

1.1 Problem Statement

Personalised learning is an instructional approach that tailors learning experiences to the specific needs, interests, and abilities of individual students. It has been shown to be effective in improving student engagement, academic achievement, and retention in larger schools, but its effectiveness in LES is less clear. The research that involved personalised learning in LES is scarce. Personalised learning, an instructional approach that tailors learning experiences to the specific needs and abilities of individual students, has shown promise in improving student outcomes in larger schools [7]. However, its effectiveness in addressing the unique needs of students in LES is unclear.

Due to scarce resources, a shortage of teachers, and a lack of course options, teaching English in Malaysian LES confronts severe difficulties. These schools often struggle to provide quality English language instruction and meet the diverse needs of students. The small student population results in larger multi-graded class sizes, limited opportunities for individualised instruction, and a lack of diverse language learning experiences [5, 8, 9]. Consequently, students may face difficulties in developing English language proficiency and achieving academic success. Addressing these challenges and finding effective strategies to teach English in LES is essential to ensure equitable access to quality education and enhance students' language skills and academic achievement.

The issue of low achievement in academics has been one that overwhelmed LES, especially rural schools. Due to that, teachers may be hesitant to adopt this approach, potentially depriving students of the benefits of tailored learning experiences that are crucial for their future success and development. However, the findings of this research can help address this challenge by developing personalised interventions that offer crucial support to both teachers and students in such schools. These interventions have the potential to promote fairness and impartiality in educational outcomes for all students, regardless of their socio-economic background or geographical location.

1.2 Research Purpose

This study aims to find out the use and challenges of implementing personalised learning approaches on the English language proficiency of students in Malaysian LES as well as ways to overcome those challenges. By investigating the implementation of personalised learning in LES, the study seeks to provide valuable insights into effective instructional strategies that can enhance the educational experience and English language proficiency of students in these unique educational settings.

1.2.1 Research Objectives

The research objectives of this study are:

1. To explore the implementation of personalised learning for teaching English in Malaysian LES.
2. To explore the challenges associated with implementing personalised learning to teach English in Malaysian LES.
3. To explore the ways to overcome challenges associated with implementing personalised learning to teach English in Malaysian LES.

1.2.2 Research Questions

The research questions of this study are:

1. How is personalised learning being implemented for teaching English in Malaysian LES?
2. What are the challenges associated with implementing personalised learning to teach English in Malaysian LES?
3. How to overcome challenges associated with implementing personalised learning to teach English in Malaysian LES?

1.3 Conceptual Framework

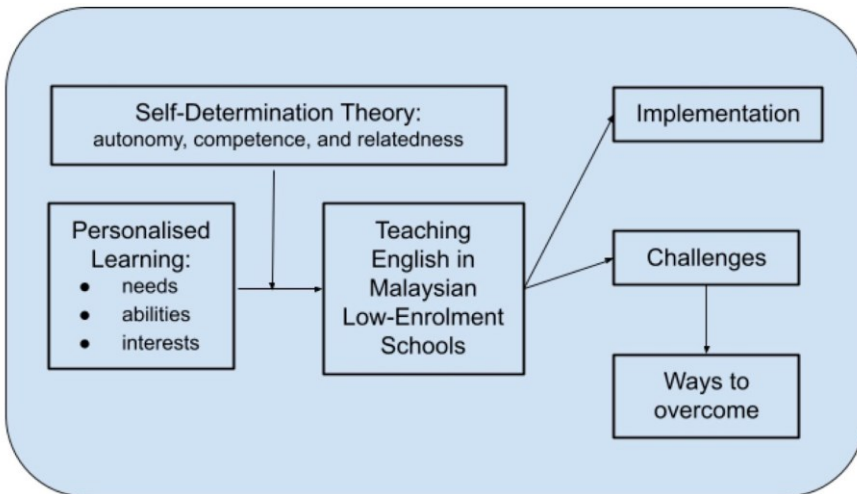


Fig. 1. Conceptual framework.

The conceptual framework in this study demonstrates the interconnectedness between personalised learning, self-determination theory, implementation, challenges, and ways to overcome the challenges for teaching English in low-enrolment schools. The framework suggests that personalised learning, which aims to create a learning climate that supports student learning outcomes, can be optimised by applying self-determination theory. This theory emphasises that learners' innate needs for autonomy, competence, and relatedness [10] must be met in order to motivate and engage them in the learning process. The learners' abilities and interests are also the factors in implementing personalised learning [11].

The framework highlights the implementation of using personalised learning in teaching English. This is to find out how teachers in Malaysian LES carry out the approach in the English lessons such as their preparation and teaching and learning activities. Other than that, challenges and ways to overcome the challenges for teaching English in low-enrolment schools will also be discussed, which include the community's involvement. Overall, the conceptual framework offers a comprehensive approach to addressing the complexities of teaching English in low-enrolment schools while promoting personalised learning and self-determination theory.

1.4 Significance of the Study

It is crucial that educators, policy-makers, and community members are aware of these issues and collaborate to find solutions. This research is hoped to provide more insightful thoughts from the experienced participants in assisting the success of students in these schools. The significance of this study can be highlighted in several ways. First and foremost, this study can help in addressing challenges in LES. LES often face resource constraints, limited course offerings, and reduced diversity, among other challenges. This study's focus on personalised learning approaches acknowledges the unique context of LES and seeks to address the specific challenges they face in teaching English.

On the other hand, this study also can enhance student engagement and motivation. Personalised learning approaches are designed to cater to individual student needs, interests, and learning styles [12]. By implementing personalised learning in LES, this study aims to enhance student engagement and motivation in the learning process, which can have a positive impact on academic performance and overall educational experience. Next, English Language proficiency can be improved as English proficiency is crucial for students in Malaysia to effectively participate in a globalised world [8]. By implementing personalised learning strategies, this study seeks to enhance the teaching and learning of English in LES, potentially leading to improved English language proficiency among students.

Other than that, education policies and practices can be informed through this study. The findings of this study can provide valuable insights into the feasibility and effectiveness of personalised learning approaches in LES in Malaysia. This can inform education policies and practices at the regional or national level, potentially leading to the adoption of personalised learning strategies in similar educational contexts. Last but not least, this study can contribute to research on personalised learning. The study contributes to the existing body of research on personalised learning, specifically in the context of LES in Malaysia. By exploring the implementation of personalised learning approaches in teaching English, this study adds to the knowledge and understanding of effective instructional strategies in low-enrolment settings.

Overall, the significance of this study lies in its potential to address the unique challenges faced by LES, enhance student engagement and English language proficiency, inform education policies, and contribute to the broader research on personalised learning.

2 Literature Review

Personalised learning is an approach of education in which instruction is personalised to the specific needs of each student. This technique has grown in favour in recent years as a way to increase student involvement, motivation, and accomplishment, particularly in low-enrolment schools (LES). The goal of this literature review is to explore the concept of personalised learning, the theories that underpin it, implications of prior research, and its promotion in LES.

2.1 Concepts

In this part, the concepts of the study will be explained in three areas including teaching of English, personalised learning and low-enrolment schools (LES).

2.1.1 Teaching of English

The teaching of English is the process of facilitating language learning and skill development in the English language. This typically involves the use of various methods and strategies, such as reading, writing, listening, and speaking, as well as the study of grammar, vocabulary, and pronunciation. Effective English language teaching requires an understanding of learners' needs, goals, and backgrounds, and the ability to employ a range of teaching approaches and resources to create a dynamic and engaging learning environment. English language teaching is an important aspect of global education due to the widespread use of English as an international language in business, academia, and communication across cultures. The importance of English language teaching as a means of promoting intercultural communication and understanding in an increasingly globalised world [13]. The author argues that teaching English as an international language (TEIL) can help learners develop the language skills necessary to communicate effectively across cultures. An article examines the opportunities and challenges of English language teaching in the age of globalisation [14]. The author argues that English language teaching is essential for preparing learners to compete in the global job market and to communicate effectively with people from diverse linguistic and cultural backgrounds.

Teaching English in Malaysia can be a challenging yet rewarding experience. Malaysia is a diverse country with multiple languages and cultures, and English is one of the official languages alongside Malay. English language education in Malaysia is given great importance, and the country has implemented various policies and initiatives to improve the quality of English language teaching. English language teaching in Malaysia is predominantly focused on the Malaysian Education Blueprint, which outlines the government's vision for education in the country. The blueprint emphasises the importance of English language proficiency in preparing students for the global workforce and improving the country's economic competitiveness [3]. Overall, teaching English in Malaysia can be a fulfilling experience, as teachers have the opportunity to make a positive impact on their students' language skills and prepare them for the global workforce [15]. However, it requires a deep understanding of Malaysia's cultural and linguistic diversity and a willingness to adapt teaching strategies to meet the needs of students with varying language backgrounds and proficiencies.

2.1.2 Personalised Learning

Personalised learning is an approach to education that seeks to tailor instruction and learning experiences to the individual needs and interests of each learner. This approach recognises

that students have unique individual needs, abilities, and interests, and aims to create a more individualised and student-centred learning experience. McCarthy [11] defines personalised learning as an approach to education that tailors instruction and learning experiences to the individual needs, interests, and abilities of students. The author emphasises that personalised learning is a student-centred approach that recognises the unique learning styles and paces of each student. Pane et al. [16] provides an overview of the history, definitions, and potential impact of personalised learning. They define personalised learning as an approach that tailors instruction, pace, and content to the individual needs, abilities, and interests of each student.

One example of personalised learning in Malaysia is the implementation of the Dual Language Programme (DLP) in public schools [17]. This programme allows students to learn certain subjects in both English and Malay, catering to the needs of students who are more proficient in one language than the other. Additionally, students can choose to take elective subjects according to their interests and career aspirations, giving them a personalised learning experience that aligns with their goals. Another example is the use of online platforms and digital resources to provide personalised learning opportunities for students. In Malaysia, most of the schools have implemented the Digital Educational Learning Initiative Malaysia (DELIMa), which allows students to access a range of educational materials and resources, including videos, quizzes, and interactive games, to support their learning. The platform also provides teachers with tools to track student progress and provide personalised feedback to support individual student needs [18].

2.1.3 Low-Enrolment Schools (LES)

Low-enrolment schools are educational institutions that have fewer students enrolled than their intended capacity or a minimum enrolment threshold set by the government or education authorities. These schools often face various challenges, such as limited resources, difficulty in retaining teachers, and reduced funding. A few journals explore the impact of low enrolment on school outcomes, including academic achievement and teacher retention, as well as the characteristics and practices of successful small schools [19-21]. Additionally, the challenges and potential solutions for low-enrolment schools are discussed in the literature. Perez [21] identifies several challenges faced by low-enrolment schools, including limited funding, limited resources, difficulty in hiring and retaining staff, increased workload for staff, limited course offerings and extracurricular activities, and the possibility of closure. The author emphasises that these challenges can lead to a negative impact on student achievement, school climate, and teacher morale.

In the Malaysian context, low-enrolment schools refer to schools with student enrolments that fall below the Ministry of Education's target enrolment figures. These schools are often located in rural areas or areas with low population density, and they face unique challenges related to funding, staffing, and providing quality education to students. According to a report by the Malaysian government, low-enrolment schools in Malaysia face a range of challenges, including limited funding, difficulty in hiring and retaining qualified teachers, and limited resources for curriculum development and extracurricular activities [22]. These schools may also struggle to provide a diverse range of courses and programs to their students, which can limit their opportunities for academic and career success. To address these challenges, the Malaysian government has implemented a range of initiatives aimed at supporting low-enrolment schools [6]. These include increasing funding for these schools, offering incentives to teachers to work in rural areas, and developing targeted programs to improve educational outcomes for students in these schools.

2.2 Self-Determination Theory (SDT)

Self-Determination Theory (SDT) has been applied to the field of education, including personalised learning approaches. SDT is a theory of motivation and personality that addresses three fundamental and universal psychological needs: autonomy, competence, and relatedness [10]. Individuals are more likely to be intrinsically motivated and engaged in activities that meet these three basic needs. SDT promotes the establishment of a learning atmosphere that can nurture the three elements crucial for sustaining elevated levels of intrinsic motivation, leading to better learning outcomes in educational settings.

Several studies have explored the connection between SDT and personalised learning. Jang et al. [23] conducted a study to investigate how SDT relates to personalised learning in a university-level online course. The study revealed that personalised learning can be effective when it is consistent with the fundamental psychological needs for autonomy, competence, and relatedness outlined by SDT. It was found that students who received more autonomy support and had a greater sense of competence were more likely to engage in personalised learning.

In schools with low enrolment, personalised learning based on SDT can be particularly beneficial for both teachers and students. SDT emphasises the importance of educators assisting students in feeling competent by offering suitable challenging activities and performance feedback [24]. "Feelings of competence are promoted when learning environments differentiate tasks at the appropriate level of challenge for high ability students" (p. 11) [25]. For example, teachers can use personalised learning to tailor their instruction to the specific needs and interests of each student, which can help to create a more engaging and supportive learning environment. Students, in turn, are more likely to be intrinsically motivated to learn and to feel a sense of ownership and autonomy in their learning experiences.

Personalised learning has become an increasingly popular approach in education, and by tailoring instruction to individual students' needs, abilities, and interests, personalised learning can enhance students' engagement, motivation, and learning outcomes. Moreover, when personalised learning is based on the principles of Self-Determination Theory (SDT), it can provide even greater benefits, particularly for schools with limited resources and low enrolment. By fostering students' sense of autonomy, competence, and relatedness, personalised learning based on SDT can create a more supportive and effective learning environment [24], ultimately leading to better educational outcomes.

2.3 Past Research

Among the critical factors in promoting personalised learning is student agency and autonomy. Personalised learning can only be achieved when students are given the opportunity and autonomy to choose their own learning paths [26]. Teachers should act as facilitators rather than spoon-feeding their students. When students are empowered to make choices in their learning, they are more engaged and motivated, which then leads to more positive learning outcomes, such as improved self-regulation skills and increased motivation and engagement [7]. This approach is particularly useful in promoting personalised learning in low enrolment schools (LES) where students may have limited options in their learning. Here, teachers can help them to pursue their interests and passions by encouraging them to take an active role in their learning and choosing the content, pace and mode of instruction that best meets their needs. This approach can also help to bridge the achievement gap and increase equity in education by ensuring that all students have access to learning opportunities regardless of their socio-economic status or background, while fostering a sense of belonging and purpose among students [7, 27].

Another essential element of fostering personalised learning is the use of data to customise the teaching-learning process to meet the needs of individual students. This data may contain a variety of student characteristics, such as academic achievement, learning preferences, interests, and cultural backgrounds. Teachers, for example, may use formative assessment approaches such as tests, quizzes, and other assignments to collect data on students' knowledge, skills, and performance. They could also conduct diagnostic exams to identify specific strengths and weaknesses. Teachers can better understand each student's particular needs by examining this data and adapting the teaching-learning process accordingly [28]. This objective is to offer each student a customised learning experience that can help them reach their full potential and succeed academically [28, 29].

Additionally, project-based learning (PBL) demonstrated its potential as a useful tool for teachers to encourage individualised learning among LES students or to implement personalised learning [30, 31]. Oh and colleagues' research from 2020 found that PBL encourages student involvement and motivation by letting them work on projects that are pertinent to their interests and needs. Due to the fact that students are expected to apply their knowledge and understanding to real-world problems, this method also encourages critical thinking and problem-solving abilities. Teachers indirectly assist students in developing a sense of ownership over their learning while enhancing their academic performance by exposing them to PBL in personalising their learning [32]. As highlighted in the fourth Sustainable Development Goal (SDG 4), indicator 4.4.1 [33], it also gives students the chance to develop 21st century skills like collaboration, communication, and creativity. These skills are regarded to be crucial for people to master through action based on personal experience and reflection [34]. As a result, the development of the personalised learning idea promotes the value of the student in the learning process, the emphasis on deep learning, and the transforming power of learning. This is centred on putting the student at the centre of the process, enabling learning by giving them the autonomy they need and making learning a lifelong journey. Individual diversity should be acknowledged rather than ignored in this approach.

Another issue that must be addressed is the difficulty of geographical isolation. Low enrolment schools may be the only educational option for students in rural or remote areas [35]. Students who come from low enrolment schools generally confront resource limitations, such as financial resources, labour management, school infrastructure, and teaching-learning materials, due to the size of this type of school, which is typically small [36]. Personalised learning would be the appropriate method for teachers in this type of school to utilise in order to deal with these limits. This will allow teachers and students to fully exploit the resources in order to respond to the specific needs and interests of each student [5, 36]. Limited resources can act as a spur for creativity and innovation in education, leading to more individualised and student-centred approaches to learning [5, 9]. Students could learn to cooperate among themselves, with teachers' assistance, to create their projects and foster a culture of cooperation and invention, resulting in a more effective learning environment for all students. This could help overcome the geographical isolation issues that low-enrolment institutions confront.

3 Methodology

This section will outline the research design that was used for this qualitative research, samples, instruments, data collection, and analysis that were carried out to explore effective personalised learning approaches practised in this context of research and to identify the challenges associated with implementing personalised learning in LES, as well as ways to deal with these challenges in teaching English Language to students in low-enrolment schools.

3.1 Research Design

This study took a narrative approach to the impact of personal and professional experiences on teaching practise [37-40], with a focus on personalised learning, which used to provide equitable quality education to students in low-enrolment schools. As Denzin [41] points out, as we live in stories, it is critical that the past and its stories are recounted in ways that provide us with tools to assess and understand problems in the past. It also allows us to recognise patterns that would otherwise be unseen in the present, giving us a critical viewpoint for understanding and solving current and future challenges. This is feasible due to the valuable information gained via oral history, which is a collection of recollections and subjective impressions with historical resonance collected from recorded interviews [42].

Oral history has the potential to produce powerful narratives through the flow of words in situational and interpersonal contexts. As a result, the individuals' identities and perspectives are made public, and other audiences may clearly understand the history [1, 43]. It allows researchers to record the voices, memories, and perspectives of historical people, in this case, four instructors with at least five years of experience teaching in low-enrolment schools (LES). When analysing the phenomenon under study and revealing its unique features, the researchers have flexibility, authenticity, depth, and transparency due to this qualitative research lens [44]. This study is important because it will provide us all a tool to engage with and learn from the people we live and work with through an interview that captures their distinctive history and viewpoint in their own words.

As indicated in the research introduction, the current socio-educational setting offers the framework for comprehending and contextualising narratives by emphasising the lived experiences of four English instructors who have taught students in LES in Sabah, Sarawak, and Pahang. They specifically highlight how individualised learning is implemented among students in these types of schools. Teachers' perspectives, assumptions, attitudes, actions, and self-concepts are inevitably evident in their narratives [37]. The telling of these teachers' stories will allow us to collect, analyse, dissect, and deduce the significance of past, present, and future perspectives—all of which are critical to ensuring inclusive and equitable quality education and encouraging opportunities for lifelong learning in Malaysia.

3.2 Samples

Since the potential participants were chosen specifically from the researchers' network of friends and acquaintances in order for them to highlight their pertinent first hand experiences of teaching in low-enrolment school settings, this oral history method necessitates a combination of purposive and convenience sampling. The participants were chosen based on their willingness to participate and enjoyment of reflecting on their professional development as teachers. Additionally, participants were contacted online. Before conducting the interview online, participants were given a consent form. Confidentiality is protected by using pseudonyms.

In terms of the participants' demographics, 3 are female and 1 is male. All participants have at least five years of experience teaching in low-population schools in rural Sabah, Sarawak, and Pahang. There are as few as 25 students and as many as 120 pupils enrolled in these schools, and because of their diverse backgrounds, English appears to be a foreign language to them. Each respondent has had experience teaching a variety of subjects in their schools, in addition to English. These teachers could also have to deal with less motivated students and administrators who might not place as much priority on teaching foreign languages because low-enrolment schools typically lack instructional facilities and support [45].

3.3 Instruments

An online semi-structured interview was used as the research instrument for this qualitative study to help answer the research questions. This research tool was intended to elicit detailed data while also providing flexibility to researchers and participants and standardising interviewing techniques [46, 47]. The questions were developed based on 6 elements for the online interview or online interview form. The participants' demographic backgrounds were covered in Part A, which has 5 items. Three major questions about LES students' characteristics were in Part B. Three questions made up Part C, which covered the participants' teaching experiences with integrating individualised instruction. Part D discussed the strategies for implementing personalised learning with four questions. Part E included two questions that address the difficulties in implementing personalised learning, and Part F contained three questions to address those difficulties. These six components of the interview resulted in 15 different questions.

3.4 Data Collections

All interviews were taken place using video conferencing platforms like Zoom and Google Meet, and with the participants' permission, the meetings were videotaped. In case of an emergency, the researchers had the questions in softcopy and sent to the participants. Alternatively, an interview was conducted via Whatsapp message. Independently, researchers took the data from the recorded interview and arranged it in accordance with the list of questions. The items were examined, compiled, and evaluated using the methods of qualitative research.

3.5 Data Analysis

The analysis of qualitative data was trifold. The first part was data transcription, followed by data coding and, ultimately, data analysis to identify the answers to the study questions. Transcription converts audio or video data from semi-structured interviews to written form. The transcriptions were organised and analysed according to the question list. Following the completion of the data transcription, the oral history texts for each respondent were narrated. The information obtained was then subjected to a thematic analysis based on the five interview parts to uncover emergent codes based on common themes and keywords found in the oral history texts. Finally, the data was presented using theme analysis.

4 Findings

This section features the oral history texts that were prepared based on the transcriptions of the interviews by the four respondents. Thematic analysis was then used to examine the oral history texts.

4.1 Thematic Analysis

The oral history texts were examined using thematic analysis. This section discussed the analysis based on three research questions.

4.1.1 Research Question 1

How is personalised learning being implemented for teaching English in Malaysian LES?

For research questions one, there are two aspects discussed, mainly participants' experiences and strategies in implementing personalised learning. Based on the transcription of the interviews, two themes were identified for the first aspect and three themes for the second aspect.

(i) Participants' Experiences

From the aspect of participants' experiences, two themes were identified from the transcript: identifying students' abilities and identifying students' interests. The theme of identifying students' abilities in the context of education delves into understanding and nurturing the unique potential of each learner. This theme encompasses various sub themes that highlight the essence of recognising and fostering students' talents and capabilities. One of these subthemes is focused on individual progress and achievements. In this regard, participants have observed remarkable improvements among their low-enrolment school (LES) students. These advancements encompass enhanced language skills, elevated academic performance, and a notable boost in self-confidence. The significance of such progress is exemplified in the transcript like, "Being able to write nicely and do what I asked was already something to be thankful for." These words reflect the heartfelt appreciation participants have for witnessing the incremental growth of their students. Moreover, there are instances where even the smallest accomplishments hold immense value, as demonstrated by the affirmation that "One small achievement in this low-enrolment school makes me happy." Such instances further emphasise the transformative power of acknowledging and celebrating students' achievements, irrespective of scale, fostering a positive learning environment.

Another crucial aspect within the theme of identifying students' abilities is the subtheme of tailoring instruction to students' competency. This approach recognises the diversity in students' English language proficiency levels and adapts teaching methods accordingly. This tailored instruction ensures that each student's unique competency level is addressed effectively. This is particularly vital in the context of low-enrolment school (LES) students, as their English proficiency levels might vary widely due to various factors. Participants acknowledge the importance of adapting their lessons to match their students' English competency and adjusting their teaching techniques based on the smaller class sizes, as articulated by the statement, "My lessons are tailored to my students' competency and level of English as the size of the class is smaller." This personalised approach to teaching not only facilitates better understanding but also contributes to a more inclusive learning environment where each student's needs are met. Ultimately, this sub theme underscores the significance of employing differentiated strategies to cater to the diverse learning styles and competencies of LES students.

Next, the theme of identifying students' interests within the realm of education revolves around recognising and nurturing the unique passions and curiosities of learners. Within this theme, three distinct sub themes emerge, shedding light on effective strategies to engage and empower LES students. The first subtheme highlights the significance of promoting engagement through real-world connections. Participants employ innovative strategies to captivate their students' attention, infusing the learning process with vibrancy and joy. They accomplish this by interweaving real-world topics, personal anecdotes, and captivating visuals into their lessons. The impact of this approach is vividly illustrated through statements like, "To make them engaged in the learning process, I would tell them my childhood stories... I showed them videos and pictures about Peninsular Malaysia." These accounts highlight the profound effect of relating the curriculum to students' lived experiences, resulting in heightened participation and a more enjoyable educational journey.

Another pivotal facet within the theme of identifying students' interests is the subtheme of personalised learning activities. Participants recognise the significance of tailoring their

teaching methods to align with the unique inclinations and understanding of LES students. This personalised approach encompasses a range of creative tools, such as flashcards, songs, puppets, and worksheets adorned with captivating imagery. Prioritising connection and understanding, educators invest time in familiarising themselves with their students' preferences. As one participant articulated, "I always try my best to get to know them first and their likings. This is essential to cater to my students' needs in my lesson, and it is easier for me to do so since there are fewer students." By integrating these personalised elements, participants cultivate an atmosphere where learning becomes an immersive and tailored experience, facilitating a deeper comprehension of the subject matter.

Within the overarching theme of identifying students' interests lies the crucial subtheme of building relationships and motivation. Participants acknowledge the profound impact of forging connections with LES students, inspiring them to envision a future imbued with possibility. These relationships become pillars of support, fostering an environment where recognition and rewards serve as motivational forces. The transformative potential of such connections is vividly expressed through sentiments like, "My hope was for them to follow in my footsteps and become teachers... I wanted them to understand the impact we had on their lives." Additionally, participants play a vital role in nurturing students' aspirations. By understanding their dreams and aspirations, as articulated by one participant, "They wanted to change their lives and get a much better paying job... I wanted to help my LES students achieve their dreams," participants provide the guidance and encouragement needed to pave the way for students' success, creating a path toward a brighter future.

(ii) Strategies in Implementing Personalised Learning

The second aspect discussed in research question one is the strategies for implementing personalised learning. Three themes were identified from the transcripts. In the realm of education, a foundational theme takes centre stage - the creation of a positive and supportive learning environment. Within this overarching theme, sub themes emerge, focusing on crafting spaces that foster engagement, enjoyment, and a genuine passion for learning among LES students. One such sub theme centres around building an environment that is not only positive but also enjoyable. Participants take deliberate steps to infuse their classrooms with elements that captivate and energise their students. Through innovative methods and creative approaches, students become active learners in their own learning journey. This resonates in statements like, "They enjoyed and felt excited about learning English through these methods," underlining the impact of fostering an environment that sparks enthusiasm and curiosity. Further emphasising the connection between enjoyment and learning, participants tap into students' interests, such as incorporating singing into the English class for those who relish musical expression, as shown in the transcript like, "The LES students love to sing! So singing was a must in our English class." This not only makes learning more relatable but also showcases the participants' commitment to catering to the diverse preferences of their students. Moreover, the practice of encouraging students to contribute and share their favourite items or treasured possessions creates a sense of belonging and personal investment in the learning process.

Another vital facet within the theme of fostering a positive and supportive learning environment is the sub theme of encouraging student participation and sharing. This element underscores the value of inclusivity and active involvement in the educational journey. Participants recognise the importance of providing platforms for LES students to express their ideas, interests, and experiences. By promoting open dialogue and discussion, students are empowered to contribute meaningfully to the classroom dynamic. As illustrated by the statement, "Some students really want to contribute to the learning session by talking about their interests and bringing their favourite item/treasured item to school," participants

actively embrace and celebrate students' perspectives. This practice not only enhances students' self-esteem but also cultivates a sense of ownership over their learning experience. Furthermore, such participatory approaches serve as a bridge between educators and students, fostering relationships built on mutual respect and understanding. This subtheme, in essence, highlights the educators' dedication to nurturing an environment where every voice is valued, fostering a collaborative atmosphere that enriches the learning journey for all.

The pursuit of developing competence and skills through engaging activities, which is the second theme, lies at the heart of effective education, where every effort is made to ensure that LES students receive tailored instruction. Within this overarching theme, a key sub theme emerges, highlighting the strategic adaptation of language and tasks to correspond with the proficiency levels of LES students. Participants employ a nuanced approach, recognising the diverse range of abilities within their classrooms. This involves a deliberate process of simplifying language structures and tasks, as expressed in statements such as, "I did not encourage them to construct complex sentences, but instead, I only use simple and compound sentences." By employing this method, participants provide students with an accessible starting point, ensuring comprehension and reducing potential frustration. Furthermore, the practice of preparing tasks and worksheets of varying difficulties underscores the commitment to individualised learning. As captured in the statement, "I always prepare a few tasks/worksheets of different levels of difficulties for my students since it is easier to monitor them in a smaller size," educators create an environment conducive to gradual skill development. This sub theme emphasises the participants' dedication to nurturing growth at each student's pace, ultimately fostering a foundation of competence and confidence.

Within the broader theme of developing competence and skills, a significant subtheme comes to the fore - the integration of engaging activities that promote language skills and critical thinking among LES students. Participants understand that interactive and stimulating activities hold the potential to spark curiosity and enhance learning outcomes. These activities, thoughtfully curated to align with LES students' unique needs, play a crucial role in fostering linguistic and cognitive development. Notably, the mention of activities like word mazes, Scrabble, and puzzles illustrates this approach. The participant's perspective, "They love word mazes, Scrabble, and puzzles. These games are not only fun but also can develop their language skills and critical thinking especially when they only have fewer friends to mingle with," highlights the dual benefits of such activities. Not only do they create an enjoyable classroom atmosphere, but they also empower students to engage in meaningful language exploration and cultivate essential critical thinking skills. This sub theme underscores participants' commitment to providing LES students with opportunities that go beyond rote learning, encouraging them to become active learners in their own skill development journey.

Promoting student autonomy and ownership of learning is a guiding principle that underscores the essence of education. Within this overarching theme, a significant sub theme emerges - the adept adaptation of teaching methods to the available resources and tasks, all while maintaining the autonomy of LES students. Participants display remarkable flexibility by tailoring their approaches to accommodate the unique circumstances and resources at hand. The fusion of cultural celebrations and language acquisition, as seen in statements like, "Another aspect was the celebration of different ethnicities. Sometimes, we organised fashion shows where they would wear their traditional attire," not only encourages language practice but also highlights the value of connecting with students' personal experiences. This multifaceted approach extends to practical, hands-on activities, where participants utilise everyday experiences like sandwich-making to introduce English, as recounted in, "...when making a sandwich, I would bring the ingredients and introduce them in English." Moreover, the integration of outdoor lessons and cooking activities by the river showcases a dedication

to contextual and experiential learning. As encapsulated by, "sometimes conducting lessons by the river or engaging in cooking activities near my quarters," participants foster a dynamic environment that bridges classroom instruction with real-life situations, allowing students to take the reins of their learning journey.

In the pursuit of promoting student autonomy and ownership of learning, the sub theme of employing technology and digital resources takes centre stage. This approach resonates with the evolving landscape of education and the digital era. Participants recognise the transformative potential of technology in elevating engagement and facilitating self-directed learning. By transitioning from physical books to digital resources, as articulated in the statement, "I change from physical books to digital resources for reading activities. I hope the digital resources will be more engaging for my LES pupils," participants provide LES students with innovative avenues for exploration. Through interactive platforms, students can navigate a wealth of information, exercising independent decision-making and taking charge of their educational experience. This sub theme underscores educators' commitment to harnessing technology's power to enhance engagement and facilitate a seamless blend of guided instruction and autonomous exploration. By integrating digital tools into the learning process, participants empower LES students to navigate a dynamic learning landscape and cultivate the skills necessary for self-driven success.

4.1.2 Research Question 2

What are the challenges associated with implementing personalised learning to teach English in Malaysian LES?

For research question two, three themes were identified from the transcripts: challenges of teachers, challenges of students and challenges posed by geographical factors.

(i) Challenges of Teachers

Within the sphere of education, a pervasive challenge faced by teachers in the context of low-enrolment school (LES) is the occurrence of conflicts amongst their colleagues. This challenge emerges as a sub-theme, highlighting the discord that arises when personalised learning methods are introduced. While personalised learning aims to cater to individual students' needs, it's not always universally embraced. The statement, "Some teachers are really against the idea," vividly captures the resistance faced by participants seeking to implement innovative teaching approaches. The tension escalates when certain teachers perceive their own lessons to be disrupted by personalised methods, as indicated by, "It also creates tension between some teachers and me because they feel that their lesson is disrupted by the songs as the school has fewer pupils." This conflict not only strains professional relationships but also underscores the inherent challenges of introducing new teaching methodologies within a complex educational ecosystem.

Another significant challenge teachers encounter within the theme of "Challenges of Teachers" is the burden of an overwhelming workload. This sub theme underscores the intricate tapestry of tasks that participants must navigate alongside their core teaching responsibilities. Teachers in LES are burdened with numerous additional duties, often stretching their capacities thin. The sentiment, "Teachers in LES have a maximum workload. One person has to handle too many tasks," encapsulates the pressure felt by participants who are juggling a myriad of responsibilities beyond classroom instruction. This demanding workload can hinder their ability to fully engage in personalised learning initiatives, potentially impacting the quality and depth of preparation for such tailored approaches.

The theme of challenges faced by teachers is further illuminated by the sub theme of time constraints. In the pursuit of educational excellence, participants often grapple with limited time to complete syllabi and adequately prepare personalised learning materials. The struggle to strike a balance between covering all necessary topics and adopting innovative methods is poignantly expressed in the statement, "One of the major challenges is the inability to finish the syllabus within the allocated time." The multifaceted responsibilities inherent in teaching also curtail participants' capacity to infuse creativity and real-life experiences into their lessons, as conveyed by, "I do not have ample time to prepare and bring in real-life or exciting realia for teaching." This sub-theme underscores the intricate dance teachers engage in, attempting to weave together effective pedagogical methods while adhering to strict time constraints imposed by curriculum demands and the educational calendar.

(ii) Challenges of Students

Navigating the educational landscape presents students with a spectrum of challenges that influence their learning experiences and growth. One key sub theme that emerges within this overarching theme is the inclination of students to compare lessons. In the context of LES, students often find themselves evaluating the approaches of different teachers, forming preferences based on the level of engagement and excitement they derive from the learning process. This trend is encapsulated by the statement, "It is also sad because the students from the LES cannot help but compare one teacher's lesson to another because they want to have fun in their classroom instead of a mundane chalk-and-talk learning session." While this inclination demonstrates their desire for captivating and dynamic educational encounters, it can simultaneously foster varying expectations, potentially leading to challenges in maintaining consistency across classrooms.

Alongside the tendency to compare lessons, another compelling subtheme surfaces: the demotivation of students. This demotivation can stem from several sources, including a lack of confidence and proficiency in the language being taught. While personalised learning strategies aim to address individual needs, they may not uniformly resonate with every student's learning style. This discrepancy is highlighted by the concern shared in the statement, "As for Level 2 students in LES, some will have low self-esteem compared to other average students." Moreover, the variability in teaching methods and approaches across different grade levels, as indicated by, "Another challenge is the inconsistency in teaching methods and approaches between different grade levels," can lead to feelings of confusion and challenges in adapting, particularly when transitioning to new levels. This sub-theme underscores the complexity of addressing diverse student needs while fostering an environment that nurtures self-esteem, motivation, and a sense of inclusivity, all within the context of tailored learning experiences.

(ii) Challenges Posed by Geographical Factors

Amid the realm of education, a significant theme emerges - the challenges posed by geographical factors on the educational landscape. Within this theme, key sub-themes underscore the struggles that educators face in delivering effective personalised learning experiences. One such sub-theme is the presence of limited facilities and resources, profoundly affecting the execution of personalised learning strategies. The constraints become apparent when participants are faced with the scarcity or malfunctioning of essential tools and technology. The sentiment, "As for other facilities, such as LCD projectors, there was only one available," sheds light on the hurdles participants confront when they lack the necessary equipment to enhance classroom engagement. In addition, the wear and tear of

facilities in low-enrolment schools can be prohibitive, as articulated in, "The facilities in the low-enrolment school are run-down and I cannot bring my projector to the classroom as the power/plug point in the classroom are out of order." This sub theme emphasises the barriers participants encounter when attempting to implement personalised learning methods, highlighting the need for adequate infrastructure to support dynamic and effective teaching.

Another compelling sub-theme within the theme of challenges posed by geographical factors is the struggle participants face due to limited resources, particularly in rural areas where LES schools are often situated. The disparity in resources becomes stark when participants are unable to access necessary materials to facilitate their personalised learning plans. This is underscored by the statement, "The resources were indeed limited. In terms of the internet, it was non-existent." Geographical remoteness exacerbates the issue, as participants are faced with challenges in obtaining resources vital for a well-rounded education. The geographic isolation is emphasised in statements such as, "The distance to the mall is quite far, requiring a boat ride. Additionally, there are more options available there, in the peninsular." This subtheme highlights the disparities that exist between urban and rural educational settings, underscoring the need for equitable access to resources to ensure that all students can benefit from comprehensive and effective personalised learning experiences.

4.1.3 Research Question 3

How to overcome challenges associated with implementing personalised learning to teach English in Malaysian LES?

For research question three, three themes were identified from the transcripts: government support, pedagogical practices and student learning, as well as support and engagement in education.

(i) Government Support

In the field of education, a crucial theme emerges - the role of government support in shaping the quality and accessibility of learning experiences. This theme is illuminated through sub themes that underscore the significance of providing technological resources to schools in remote areas and the pivotal role of government initiatives in education. The first sub-theme emphasises the potential of technology to bridge educational gaps in underserved regions. Participants express a yearning for technological tools that can revolutionise teaching and learning. This sentiment is evident in statements such as, "The support and assistance that I greatly hoped for were in terms of technology because the rural areas and LES were still lagging behind." They recognise that technology can empower students to engage with the English language in innovative ways, as reflected in, "With the support of technology, such as stable phones and internet connection, it would greatly help the students of SKKT to learn and explore the English language." This sub-theme emphasises the need for technology to facilitate education, considering the affinity of the younger generation for digital devices and their potential to enhance language acquisition. The call for reliable internet connection to access educational resources further underscores the importance of technological infrastructure in promoting effective teaching and learning.

The second sub-theme underscores the pivotal role of government initiatives in education. Participants recognise that government investment is essential to address resource gaps, enhance educational outcomes, and ensure equitable access to quality education, particularly in the context of LES. The sentiment, "The Government should provide adequate funding in order to provide necessary resources and materials for effective teaching and learning,"

highlights the participants' expectation of financial support to create a conducive learning environment. Additionally, the sub-theme underscores the necessity of strategic planning in teacher recruitment and placement. The idea that recruiting teachers from the local community can overcome communication barriers and address shortages in rural areas is encapsulated in, "Perhaps it is time to consider recruiting more teachers from Sabah so that they can be placed back in their home states." This sub theme further reinforces the importance of collaboration between local authorities and community leaders to promote teaching as a viable profession among the local population, contributing to the overall improvement of education in LES.

(ii) Pedagogical Practices and Student Learning

The realm of pedagogical practices and student learning, which is the second theme, is enriched by the subtheme of inculcating a human-centred teaching approach. This pedagogical shift acknowledges the need to prioritise the holistic development of students, addressing their unique needs, interests, and abilities. Participants recognise that an education system focused solely on content fails to fully nurture students in LES. The sentiment that "The institution needs a human-touch approach" underscores the desire to create an educational environment that extends beyond academic knowledge. This approach calls for a reformation of family institutions to address societal issues faced by the youth, as shared in, "I believe a reform in family institutions is a must because youngsters these days face major problems, especially abandonment and social issues." The participants' focus on understanding students' perspectives and fostering empathy is captured by, "By treating my students as equal humans, they will reciprocate the effort that we put in our teaching." This subtheme advocates for educational practices that prioritise students' overall well-being—mental, physical, and spiritual—ultimately shaping a well-rounded student equipped to navigate the complexities of life.

Within the theme of pedagogical practices and student learning, the sub-theme of language integration and cultural exchange emerges as a bridge between education and community. Participants emphasise the power of language as a tool for communication and understanding across different cultures. By incorporating English into daily interactions, as exemplified in, "Sometimes, on Sundays, they would ask if I wanted to go to the river or join them fishing. It was during those moments that I would incorporate a little bit of English, so at least they knew, and hopefully, they could use it to communicate basic ideas," participants create opportunities for language to transcend mere academic instruction. This sub-theme underscores the potential of language to foster connection and mutual comprehension, not only within the classroom but also within the broader community.

The sub-themes of administrative assistance and flexibility in learning weave together to shape the pedagogical landscape in LES. The subtheme emphasises the significance of streamlined administrative processes that alleviate teachers' burdens and enable them to focus on students. Participants express the need for support in data entry, as voiced in, "Please make the teacher assistant a reality so that we will have more time to focus on the pupils instead of doing all the data entries especially in LES." Additionally, the provision of specialised subject teachers and teaching staff is highlighted as essential to enrich the LES students' learning journey, as indicated, "To reduce clerical work and to provide sufficient teaching staff, including specialised subject teachers, would also greatly benefit the LES students' learning experience." The synergy between administrative support and skilled teaching staff forms a foundation for effective pedagogical practices.

The final sub-theme underscores the value of flexibility in learning. Participants see the need to tailor learning experiences to the individual needs and preferences of LES students. The practice of personalised learning beyond the confines of traditional schedules, as expressed in, "I do the personalised learning out of the timetable. Eg. Early in the morning

before class started," reflects a commitment to accommodating diverse learning styles and needs. This sub-theme underscores the importance of fluidity in instructional approaches, allowing students to flourish at their own pace while engaging in a dynamic learning process.

(iii) Support and Engagement in Education

The theme of support and engagement in education, which is the third theme of RQ3, is illuminated through sub-themes that emphasise the importance of collaboration between home and school, as well as the significance of acknowledgement, inspiration, and additional support in the educational journey. In the first sub-theme, the emphasis is on fostering active collaboration between parents, families, and teachers to elevate students' learning experiences within LES. Participants express the hope for increased involvement of parents and families in their children's educational development, as shared, "I hope the parents and family are more involved in the pupil's development." Recognising the pivotal role parents play, participants envision a scenario where parents take a proactive interest in their children's academic progress, ensuring tasks such as reading and homework completion are actively supported at home, as suggested by, "Maybe they will take the time to make sure their children read or do their homework." Moreover, the sub-theme underscores the potential of community support in facilitating additional educational opportunities, exemplified by the following, "Getting full support from the community could give more benefit for the students to join additional classes or tutoring sessions." This collaborative approach underscores the shared responsibility of teachers, families, and the broader community in shaping a conducive and enriching educational environment for LES students.

Another compelling sub-theme within the theme of support and engagement in education is the emphasis on personalised strategies that acknowledge, inspire, and provide additional support to LES students. This sub-theme underscores the importance of recognising and responding to each student's unique needs, strengths, and interests. Participants implement a personalised approach to motivate students by acknowledging their efforts, as reflected in, "I reward and give recognition to my LES students for the little effort in learning." This practice not only reinforces positive behaviour but also cultivates a sense of achievement and self-worth. Furthermore, participants extend their commitment by offering additional support through initiatives like free tuition classes, as exemplified in, "I also conducted free tuition classes to further support the LES students." This personalised support acknowledges that education is not a one-size-fits-all endeavour and underscores the participants' dedication to tailoring their efforts to cater to individual learners. By nurturing a learning environment that respects and responds to each student's unique identity and learning journey, this sub-theme underscores the holistic growth of LES students, promoting their academic, emotional, and personal development.

5 Discussion and Implications

The findings of this research show that the respondents had a positive mindset towards the implementation of personalised learning to teach English in Malaysian low-enrolment schools. This can be understood and analysed through the lens of the self-determination theory.

5.1 Discussion

The foundation of self-determination theory (SDT) is the notion that humans are constantly involved in dynamic interactions with their surroundings, particularly their social surroundings. According to this theory, in order to develop and evolve, everyone needs

autonomy (the need to feel free and in control), competence (the need to feel effective), and relatedness (the desire to build meaningful relationships with others) [10]. This research where implementing personalised learning is closely connected to SDT since the English lessons were designed solely based on the students' needs, background, culture and proficiency.

5.1.1 Autonomy

Autonomy plays a significant role in personalised learning within a low enrolment school, as it enables students to establish specific language learning objectives that align with their individual interests, aspirations, and areas for improvement. In the context of the current study, the aim of English language acquisition is to equip students with effective communication skills that they can utilise beyond their school years, whether in higher education or employment settings [14, 15].

The pursuit of intrinsically motivating endeavours that are consistent with personal goals has been found to enhance individuals' happiness and satisfaction. By allowing students to focus their time and energy on activities that genuinely captivate their interest, personalised learning fosters a sense of ownership and accountability for their learning outcomes [32]. Within the framework of personalised learning in a low enrolment school, self-directed learning emerges as a prominent aspect. Students are empowered to assume control over their English language learning experience, determining the pace and depth of their learning journey by exploring the accessible resources [16]. This approach capitalises on students' innate desire for growth and self-improvement, as it facilitates engagement through appropriate teaching and learning methodologies while establishing meaningful connections to real-world contexts [7, 26].

By incorporating autonomy and self-directed learning principles, personalised learning in a low enrolment school provides students with an environment that not only supports their individual needs and aspirations but also encourages their active participation and responsibility in shaping their language learning progress. This approach acknowledges the importance of intrinsic motivation and personal agency in fostering meaningful educational experiences, ultimately contributing to students' overall development and future success.

5.1.2 Competence

Competence plays a crucial role in personalised learning, as it enables individuals to effectively communicate with others and possess the necessary skills for accomplishing their objectives. Feeling competent entails a sense of mastery over one's environment. However, feelings of competence may diminish when the tasks at hand are overly challenging or when individuals receive unfavourable criticism. Conversely, when there is a perfect match between the requirements of a task and an individual's skill level, or when individuals receive encouraging feedback, their sense of competence is enhanced [24].

In the context of personalised learning in rural locations, the utilisation of available resources becomes crucial, particularly in cases where technological limitations may exist. Teachers can employ a variety of resources such as books, workbooks, and tailored printed materials to cater to the diverse needs of learners. Additionally, teachers can design projects, exercises, and activities that align with students' language proficiency levels, fostering active engagement in the learning process [28, 29]. Moreover, personalised learning in rural regions can be enriched by incorporating and valuing the local language and culture to enhance English language proficiency. Teachers can integrate local traditions, stories, and other cultural elements into English language sessions, providing context and fostering a sense of community. By incorporating local cultural heritage, personalised learning not only promotes

language skill development but also preserves and values the rich cultural legacy of the community [13].

In summary, the development of competence in personalised learning is vital for effective communication and successful goal attainment. By considering the match between task requirements and individuals' skill levels, providing encouraging feedback, utilising available resources, and incorporating local language and culture, personalised learning approaches in rural areas can empower learners, enhance language proficiency, and foster a sense of cultural identity and belonging.

5.1.3 Relatedness

Relatedness encompasses the sense of closeness, connection, and belonging that individuals experience within a social group. Establishing and maintaining meaningful connections is crucial for the achievement of self-determination, as it provides individuals with access to help, support, and a sense of community. Feelings of relatedness are strengthened when individuals are treated with respect and care and when they are part of an inclusive environment. Conversely, relatedness is undermined by factors such as competition, cliques, and criticism from others.

Cultural relevance plays a significant role in fostering relatedness within personalised learning approaches. Integrating activities and tasks that align with students' exposure and knowledge, such as incorporating cultural practices, traditional foods, and childhood stories, enhances students' sense of relatedness and creates a bridge between their cultural identity and English language learning [11]. In the context of low enrolment schools, personalised learning allows for stronger teacher-student relationships. With smaller class sizes, educators can provide individualised attention, mentorship, and guidance to each student, fostering a sense of relatedness. This close connection between teachers and students creates a supportive English language learning environment where students feel supported and connected to their teachers [26].

A supportive learning environment is essential in personalised learning within low enrolment schools. This includes promoting respect, empathy, and understanding through daily routine activities, the surrounding environment, and nature. By cultivating a safe space for students to take risks, express themselves, and collaborate with others, personalised learning fosters a sense of relatedness among students, contributing to their English language learning journey [17, 29]. In rural areas, ensuring equal access to technology is crucial for personalised learning. Providing digital tools, such as computer labs, laptops, and reliable internet connectivity, requires a concentrated effort, including collaborations with government agencies, non-governmental organisations, and private corporations. Bridging the technology gap between urban and rural communities enables personalised learning to be supported effectively [16].

To successfully implement personalised learning, a shift toward a human-centred teaching approach is necessary. Teacher training programs should incorporate modules on human-centred pedagogy, equipping educators with the skills and knowledge to establish close relationships with their students and create a supportive classroom climate. Incorporating student choice and autonomy in lesson planning empowers students and increases their motivation and engagement in English learning. Continuous professional development and mentorship opportunities for teachers ensure the effective implementation of personalised learning [7].

Reforming the educational system to prioritise student well-being requires comprehensive changes. Curriculum modifications should strike a balance between academic achievement and students' mental, physical, and emotional well-being. Integrating well-being education into the curriculum equips children with the necessary tools to manage stress, build

resilience, and foster meaningful connections. Mindfulness practices, such as meditation or breathing exercises, contribute to students' emotional well-being. Additionally, providing counselling services in schools creates a supportive environment where children can seek assistance when needed. Engaging educational officials, administrators, and key stakeholders in discussions and research on the importance of student well-being drives effective improvements within the education system, placing student well-being at the forefront [14].

Parental involvement plays a vital role in facilitating personalised learning. Schools can actively engage parents through frequent parent-teacher meetings and workshops, fostering collaboration and providing parents with a better understanding of their child's growth and individual needs. Providing parents with resources and information on how to enhance their children's English language development at home promotes the school-family partnership. Involving parents in curriculum and school policy decision-making processes ensures that their perspectives are heard, leading to a more inclusive and effective personalised learning environment [28].

In conclusion, personalised learning has the potential to enhance student engagement, motivation, and language proficiency while nurturing their overall well-being. By recognizing the challenges and implementing appropriate strategies, personalised learning can lead to more effective and impactful English language education. Creating a sense of relatedness, cultural relevance, supportive learning environments, equal access to technology, human-centred teaching approaches, a focus on student well-being, and active parental involvement are key components in achieving these positive outcomes.

5.2 Implications

The implementation of personalised learning to teach English in Malaysian low-enrolment schools can have significant implications for students, teachers, and the education system as a whole.

5.2.1 Students

This research has more significant implications for students. First and foremost, it enhanced students' motivation. The implementation of personalised learning, aligned with the principles of SDT, has the potential to greatly enhance students' intrinsic motivation to learn English. By incorporating elements of autonomy, competence, and relatedness into the learning process, students are more likely to actively engage, set meaningful goals, and take ownership of their own learning journey. This heightened motivation can result in increased interest and enjoyment in learning the English language.

Furthermore, this study also helps to improve language proficiency among the students. Personalised learning approaches offer tailored instruction that specifically targets individual students' language needs and abilities. By catering to diverse learning styles and preferences, students can make progress at their own pace, leading to notable improvements in language proficiency across various language skills, including speaking, listening, reading, and writing. The emphasis on autonomy and self-regulation further fosters independent language learning, which can yield long-term benefits.

Other than that, this study is also significant for culturally relevant and meaningful learning experiences. Personalised learning provides an opportunity to incorporate culturally relevant content and experiences, thereby making the English language learning process more meaningful for Malaysian students. By integrating local contexts, literature, and examples into the curriculum, students can establish stronger connections with the language and develop a greater sense of identity and cultural appreciation.

On the other hand, this study also helps to increase the engagement and participation of the students in English lessons. Personalised learning empowers students to actively participate in their own education. By offering choices and promoting student agency, the learning environment becomes more engaging and interactive. This increased engagement leads to heightened participation, collaboration, and the development of critical thinking skills among students. As a result, a positive classroom culture is fostered, creating a conducive atmosphere for effective learning.

Last but not least, this research is significant in addressing individual learner differences. In low-enrolment schools with diverse student populations, personalised learning allows teachers to effectively address the unique needs and individual differences of each student. By recognising and accommodating various learning styles, abilities, and background experiences, teachers can provide targeted support and scaffolding, enabling students to overcome challenges and achieve success in their English language learning journey.

5.2.2 Teacher

The implementation of personalised learning strategies rooted in SDT necessitates continuous professional development for teachers. Teachers need to develop new instructional approaches, assessment methods, and classroom management techniques aligned with personalised learning principles. By investing in teacher training and providing necessary resources, educators can enhance their pedagogical skills, technological literacy, and ability to differentiate instruction. This ultimately benefits both teachers and students.

5.2.3 Education

The successful implementation of personalised learning approaches in low-enrolment schools can have far-reaching implications for the Malaysian education system as a whole. By showcasing the effectiveness of student-centred, individualised learning, policymakers and educational stakeholders may be inspired to integrate personalised learning practices more widely. This could lead to systemic changes and improvements in educational outcomes throughout the country, promoting a more student-centric and effective education system.

6 Conclusion

In conclusion, the implications of personalised learning in low-enrolment schools, grounded in the principles of Self-Determination Theory, are vast and promising. By fostering intrinsic motivation, enhancing language proficiency, providing culturally relevant learning experiences, increasing student engagement, addressing individual learner differences, supporting teacher professional development, and potentially driving systemic changes in the education system, personalised learning has the potential to revolutionise English language education in Malaysia. These implications highlight the importance of creating learning environments that empower students, value their individuality, and promote meaningful connections. By acknowledging and catering to students' autonomy, competence, and relatedness, personalised learning approaches can unlock students' potential, leading to improved academic achievement, heightened engagement, and overall well-being. To fully harness the benefits of personalised learning, it is crucial for policymakers, educators, and stakeholders to invest in teacher training, provide necessary resources, and foster a supportive ecosystem that embraces innovative instructional practices. By prioritising personalised learning in low-enrolment schools, Malaysia can pave the way for a more inclusive, student-

centred, and effective education system that prepares students for success in a rapidly changing world.

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