Unlocking The Potential: Integrating Clil With Digital Tools among Young Learners

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Abstract
The significance of the English language in Malaysian society and globalised contexts is notable, prompting the education system to emphasise fostering proficient English speakers. Despite this, English language acquisition continues to present challenges related to perception, dependence on teachers, inadequate support, vocabulary constraints, motivation issues, language anxiety, and cultural preferences towards the mother tongue. Therefore, effective teaching strategies, supportive learning environments, and cultural sensitivity are required to address these challenges. Past studies revealed that Content and Language Integrated Learning (CLIL) and digital tools are increasingly recognized for their impact on language education. However, primary school teachers in Malaysia often lack awareness of the practical benefits of integrating CLIL with digital tools. Thus, the objective of this research is to identify the potential impact of integrating CLIL with digital tools in Malaysian primary schools. A survey involving 144 English teachers from 13 Chinese National Type schools in an urban district indicates a positive perception of the integration, emphasizing significant improvements in students' language proficiency, including grammar, accuracy, fluency, and the four language skills: listening, speaking, reading and writing skills. Besides that, the incorporation of digital tools as well as the authentic context of CLIL lessons foster students' motivation and engagement in language learning, ultimately contributing to the advancement of language proficiency. Furthermore, the integration can instil the 7Cs of 21st-century skills—critical thinking, creativity, collaboration, communication, computing and ICT literacy, cultural awareness, and career readiness. This study advocates for the adoption of CLIL with digital tools to revolutionise English language learning in Malaysia.
Keywords: CLIL, Digital Tools, Language Proficiency, 21st-Century Skills

Introduction
English has become the most widely used language for international communication, and its dominance has grown into an unstoppable cascade (Yunus et al., 2013; Rao, 2019).

Increasing global interconnectivity and globalisation have facilitated the spread of English in a variety of fields. In Malaysia, English plays a significant role as it is extensively utilised in a variety of facets of their daily lives, including business, education, and management (Yunus and Arshad, 2015). As a consequence of globalisation, the Malaysian education system has devoted considerable time and effort to curriculum planning to produce competent English speakers who can compete internationally. Thus, the Malaysia Education Blueprint (2013-2025) was established to effect a sustainable transformation of the nation's education system. The Ministry of Education has decided to incorporate the Common European Framework of Reference (CEFR) into the English language curriculum to ensure that all Malaysian students attain proficiency in both Bahasa Malaysia and English. The purpose of the second phase of the Malaysian Education Blueprint (MEB) is to prioritise the development of language skills in both Bahasa Malaysia and English.

In Malaysia, the acquisition of English as a second language is influenced by various factors and problems. These factors can be divided into several categories, including family environment, peer-to-peer communication, and learning motivation (Yunus and Abdullah, 2011; Krishnan et al., 2020). This is in line with Khalijah et al (2019) as well as Riza and Setyarini's (2019) study that factors influencing the experience and acquisition of English learners include difficulty perceiving, dependence on teachers, limited support and exposure, vocabulary limitations, lack of motivation, language anxiety, and cultural preferences for the native language. Therefore, using appropriate teaching strategies, supportive learning environments, and cultural sensitivity are important factors to help improve English language learning outcomes in Malaysia (Yunus et al., 2014). According to Egorova (2022), the integration of Content and Language Integrated Learning (CLIL) with digital tools is an innovative and effective teaching method that promotes the 7Cs of the twenty-first century. It promotes the growth of communication skills, critical thinking, collaboration, and cooperation. In addition, it improves students' language abilities, intercultural competence, and motivation, and prepares them for lifelong learning. This is supported by a study done by (Tran and Vu, 2023). The study shows that by incorporating CLIL into English lessons, students acquire not only English language skills but also field or profession-specific practical knowledge and skills. This integration enables them to apply their language learning in real-world contexts, enriching the significance and relevance of their education.

Despite the growing recognition of their significance, research supporting the effectiveness of integrating CLIL with digital tools in Malaysia's education system is still lacking. The lack of such research limits educators' awareness of the practical impact and possible benefits of incorporating CLIL with digital tools in language lessons. Addressing this gap is critical to reveal the potential of this novel teaching practice in the Malaysian context. As a result, a comprehensive study that reveals the potential of this integration as an innovative teaching practice is needed. This study intends to be a beneficial resource for educators by providing insights into the innovative teaching practice that not only improves students' language competency but also equips them to overcome the challenges posed by the rapid advancement in today's world. The objective of this research is to identify the potential impact of integrating CLIL with digital tools in Malaysian schools. Hence, the study aims to address the subsequent research questions:

1. To what extent does the integration of CLIL with digital tools contribute to the improvement of students' language proficiency in English language learning?
2. To what extent does the integration of CLIL with digital tools contribute to the revitalisation of English language education in Malaysian primary schools

Literature Review

The innovative teaching practice – the integration of Content and Language Integrated Learning (CLIL) with digital tools in English language education is underpinned by three theories: sociocultural theory, Technological Pedagogical Content Knowledge Framework (TPACK), and the 21st-century framework. The conceptual framework for this study is shown in the figure below.
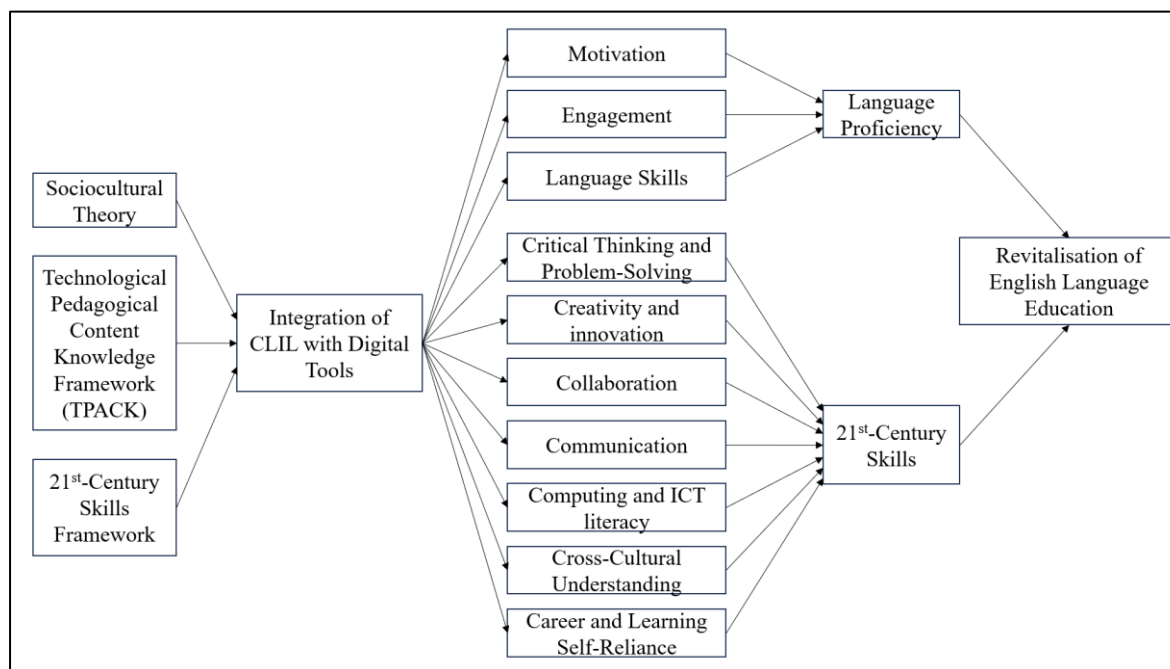

Figure 1. Conceptual Framework

The conceptual framework adopted provides a complete overview of the research study, relying on Egorova's (2020) study, which highlights the potential benefits of integrating CLIL with digital tools in boosting language learning outcomes and promoting 21st-century skills. It is believed that combining Content and Language Integrated Learning (CLIL) with digital resources can increase students' language competency by increasing motivation, engagement, and language abilities. It also intends to improve 21st-century abilities like critical thinking, creativity, collaboration, communication, computing and ICT literacy, cross-cultural understanding, and career and learning self-reliance. This strategy is expected to improve both language proficiency and 21st-century abilities, thereby revitalizing English language education.

Sociocultural Theory (SCT)

L.S. Vygotsky, a Russian psychologist, developed sociocultural theory (SCT) in the 1920s and 1930s, a paradigm in cultural-historical psychology that emphasizes the significance of social interaction and cultural context in cognitive development. According to Vygotsky (1986), learning occurs socially, with interactions with competent persons impacting knowledge gain. Besides, language, as a semiotic resource, plays an important role in cognitive development by allowing people to internalize and manage their thoughts. This viewpoint provides L2 researchers with information about language acquisition in social and cultural contexts, showing language as a facilitator of thought and cognitive growth. Sociocultural theory in education urges for socially and culturally situated learning, with an

emphasis on collaborative and interactive contexts. Understanding the sociocultural elements of language learning helps educators create authentic and contextually relevant teaching activities (Xu and Long, 2020). This is in line with several research Yunus et al (2011); Lantolf et al (2018); Xu and Long (2020) that learners engaging in social interactions can promote their progress in language acquisition as well as develop their cognitive and higher-order thinking abilities.

Technological Pedagogical Content Knowledge (TPACK) Framework

The incorporation of technological advancements into teaching is critical, and the Technology Pedagogical Content Knowledge (TPACK) framework serves as a crucial guide. TPACK, which was developed by Mishra and Koehler (2006), expands on Shulman's Pedagogical Content Knowledge (PCK) and investigates the effective use of information and communication technology (ICT) as a pedagogical tool in classrooms (Ammade et al., 2020). TPACK emphasizes the interconnection of technology (TK), pedagogy (PK), and content knowledge (CK) in education, highlighting that expertise in these domains is required for successful technology integration in teaching (Taopan et al., 2020). This is in accordance with Tseng et al (2022) that TPACK, particularly in English Language Teaching, provides teachers with a comprehensive understanding, allowing them to successfully integrate technology, pedagogy, and content. It is critical to investigate teachers' self-efficacy in integrating technology into language instruction to promote effective language acquisition (Raygan and Moradkhani, 2022).

Twenty-First Century Skills Framework

In the contemporary era marked by rapid and continuous change, individuals must adapt to the evolving demands of the 21st century, necessitating the acquisition of essential qualities such as critical thinking, collaboration, digital literacy, communication and creativity (Jerry and Yunus, 2021; Puangpunsi, 2021). Traditional approaches to learning that focus on topic knowledge development and formal assessments have been found insufficient for educating students about the complexities of the current world (Entwistle, Thompson, and Tait, 2020). Recognizing the limitations of traditional assessments in assessing a broad range of information, skills, and competencies, educational systems around the world are redesigning their syllabus and systems to validate knowledge and skills in real-world settings (Tight, 2021; Santhanasamy and Yunus, 2022). To address the changing landscape of lifestyles, learning methodologies, and cognitive processes, the Partnership for 21st Century Skills (P21, 2019) has expanded the 4Cs framework into the 7Cs, incorporating additional skills and competencies to meet modern demands (Tight, 2021). Critical thinking and problem solving, creativity and innovation, teamwork, communication, computing and ICT literacy, cross-cultural understanding, and career and learning self-reliance are all part of the 7Cs.

According to Kaing (2022); Tight (2021), a holistic approach to 21st-century skills first encompasses critical thinking and problem-solving, essential for effective reasoning, information synthesis, and fostering the development of enhanced solutions. Secondly, creativity and innovation play a pivotal role in continuous advancement, requiring the ability to generate ideas, critically evaluate them, and embrace failure as a valuable learning opportunity. Third, collaboration skills which are crucial in both civic and professional contexts, involve effective teamwork, adaptability, and fostering a collective sense of ownership. Fourth, communication proficiency, encompassing clear expression of thoughts, active listening, and adept use of various media, is fundamental for effective interaction

across diverse settings. Fifth, computing and ICT literacy, integral to the digital age, involves navigating, evaluating, and acquiring information, including information and media literacy, as well as ICT proficiency. Sixth, cross-cultural understanding underscores the importance of minimizing biases, respecting cultural differences, and leveraging diversity for innovation and improved work quality. Finally, career and learning self-reliance necessitate flexibility, adaptability, feedback acceptance, lifelong learning commitment, and a proactive attitude.

This comprehensive set of skills forms the foundation for individuals to thrive in the dynamic and evolving landscape of the 21st century. The 7Cs framework provides valuable guidance for aligning teaching practices with the skills essential for success. According to Eng et al (2021), it is crucial to rethink teaching strategies and implement innovative approaches that accommodate the evolving landscape. This is because innovative teaching and learning practices are critical for preparing students to flourish in an increasingly complicated future.

Content and Language Integrated Learning (CLIL)

Content and Language Integrated Learning (CLIL) originated in Europe in the 1990s as an educational approach that entails teaching academic subjects in a second language (L2) to students who are still in the process of acquiring proficiency in that language (Liu, 2019). CLIL is an educational approach that combines language and content, with a focus on the interconnectedness of both elements (Coyle et al., 2010). Hu et al (2022) emphasise that CLIL highlights equal importance on the acquisition of both language and content learning, setting it apart from alternative methodologies such as English-medium instruction and topic-based Instruction. The CLIL approach incorporates the "four Cs" or 4Cs Framework, which includes content, communication, cognition, and culture in integrated courses. Its goal is to enhance students' language competence, cognitive ability, and intercultural sensitivity (Banegas and Beamud, 2022).

Empirical evidence substantiates the benefits of CLIL, which comprise enhanced student motivation, autonomy, linguistic proficiency, intercultural consciousness, and critical thinking abilities (Egorova, 2022). Furthermore, CLIL promotes language development both inside and outside the classroom by providing opportunities for authentic language use and extended exposure to the second language (Urmeneta, 2019; Liu, 2019; Coyle et al., 2010). By providing examples of the target language being utilised in contexts beyond grammar, CLIL enriches language learning experiences (Omar et al., 2020). In addition, CLIL promotes constructive dialogues that emphasize meaning over form, fostering a safe learning environment that enhances learners' confidence and positive attitudes towards the target language (Hu et al., 2022). In addition to fostering linguistic development, CLIL cultivates problem-solving, collaboration, and critical thinking abilities—all of which are indispensable for achieving success in academia and the workplace (Egorova, 2022).

Digital Tools

The incorporation of digital resources into English language learning has become essential in modern education. Diverse digital tools, such as computers, programmes, web pages, digital textbooks, and social media platforms like Twitter, Facebook, and Instagram, have demonstrated their efficacy in enhancing language acquisition for English learners (Chowdhury et al., 2021). Hung (2021) as well as Zhang and Zhu (2020) assert that digital tools have greatly enhanced language learning by delivering interactive materials and platforms, hence providing students with a wide range of opportunities to improve their language skills. Li and Lan (2022) also highlight the significance of programmes, software, and online

platforms in supporting the process of language acquisition. Besides, Celik and Aytin (2014) emphasise the crucial role of technology in language instruction, noting its capacity to inspire pupils and offer concrete illustrations for abstract ideas. Georgsen and Zander (2021) further acknowledge the educational benefits of digital technology, such as enhanced student concentration, availability of diverse learning resources, and promotion of genuine communication.

The use of digital tools has prompted extensive research into innovative language teaching approaches such as mobile learning, augmented reality (AR), virtual reality (VR), gamification techniques, and the integration of artificial intelligence (AI) into language learning processes. These advancements offer diverse approaches to enhancing language acquisition, providing interactive, personalized, and immersive language experiences that cater to the preferences and requirements of learners in the digital age (Karmila, Harwati and Melor, 2021; Harwati, Karmila and Melor, 2019; Hashim et al., 2022; Ishaq et al., 2021; Obari, 2021). In a study done by Hashim et al (2022), augmented reality (AR) is an advantageous digital tool that enriches the process of learning a language through the superimposition of digital information onto physical objects or surroundings. This enables students to engage in contextualised and immersive language experiences. In a similar vein, virtual reality (VR) technology facilitates the development of a simulated environment wherein language learners can engage in controlled and secure sessions to hone their speaking abilities, alleviate language-related apprehension, and cultivate cross-cultural comprehension (Lan, 2020). Furthermore, mobile apps are highlighted as beneficial tools for learners to acquire domain-specific vocabulary at their own pace, allowing access to learning materials and participation in language activities anytime and anywhere, thereby improving overall language proficiency (Karmila et al., 2021). Harwati et al (2019) also argue that positive and motivating online language games can produce superior outcomes in comparison to conventional teaching approaches. Therefore, by incorporating these digital tools, a comprehensive strategy is exhibited towards enhancing language learning and establishing intellectually stimulating environments.

Methodology
Research Design

This research adopted a quantitative methodology, specifically employing a survey design, aimed to comprehensively investigate research questions and enhance understanding of the integration of Content and Language Integrated Learning (CLIL) with digital tools in Malaysian primary schools. To assess the effectiveness of integrating CLIL with digital tools in revitalising English language education, numerical data were collected through a closed-ended questionnaire featuring Likert-scale items. This structured approach facilitated standardized data collection for subsequent descriptive analysis, aligning with the study's objectives.

Research Participants

This study utilizes purposive sampling, focusing on English teachers in 13 Chinese National type schools (SJKC) in the Petaling Perdana district, Malaysia. This targeted approach is based on the cultural context of Malaysian Chinese schools, known for their emphasis on academic performance and challenges faced by teachers, such as heavy workloads and resistance to change (Chua et al., 2020). The choice of Malaysian Chinese National type schools is driven by the desire to understand the unique cultural and educational dynamics.

In the urban Petaling Perdana district, assumed technology accessibility adds significance to incorporating CLIL with digital tools. While the study's initial target participants were 168 English teachers, the study successfully collected valuable data from 144 participants, resulting in a response rate of 85.7%.

Research Instruments

In light of the method's acknowledged flexibility and efficacy, which resulted in time, financial, and effort savings for the researchers Curle & Derakhshan (2021), the study employed a survey design incorporating a questionnaire to collect data. The questionnaire, adapted from Cauli's (2021) research, included closed-ended questions, leveraging well-crafted items from a previous study to enhance reliability. By utilising well-established questionnaire items, this approach sought to enhance the overall strength and reliability of the research design. The questionnaire, detailed in Appendix A, comprised four sections. The first covered demographic information, including gender, age, teaching experience, and teaching options. The second focused on teachers' technological pedagogical content knowledge (TPACK) related to CLIL integration with digital tools. The third section addressed the impact of this teaching practice on students' language proficiency, while the fourth explored its contribution to the revitalization of English language education in Malaysian primary schools. The questionnaire employed a 4-point Likert scale, ranging from "strongly agree" to "strongly disagree," aiming to discourage neutral responses and encourage clear stances on each item (Taherdoost, 2019). The deliberate choice of this Likert scale intended to foster more decisive and informative participant responses, enhancing the overall effectiveness of the survey.

Data Collection

The questionnaire comprising 21 items utilising a Likert scale was created, enabling participants to express their level of agreement, ranging from 'strongly disagree' to 'strongly agree'. The questionnaire items and questions were carefully constructed to be compatible with the research questions and research objectives. A Google Form was used to assist in the distribution of the questionnaire. Before respondents started to complete the questionnaire, the researcher provided explanations of the items and the study's purpose to ensure a comprehensive understanding and accurate responses from the participants.

Data Analysis

The data obtained from the closed-ended questions (sections 2, 3 and 4) were analysed through the application of descriptive statistics. To present a comprehensive overview of participants' responses, percentages, means, and standard deviations were calculated. By summarising and organising the data in tables, the patterns and significant trends were identified. The subsequent table presents the interpretation of the mean score for a 4-point Likert Scale, as stated by Taib (1996).

Table 1
Interpretation of mean score

Mean score	Interpretation
1.00 – 2.00	Low
2.01 – 3.00	Moderate
3.01 – 4.00	High

(Source: Taib, 1996)

The mean score interpretation provides a valuable lens through which to assess the level of a variable based on participants' responses. A mean score falling within the "Low" range (1.00 – 2.00) suggests a generally lower intensity or occurrence of the measured phenomenon, indicating a potential need for improvement. On the other hand, a score in the "Moderate" range (2.01 – 3.00) points to a middle-ground situation where there is room for enhancement but not an immediate cause for concern. Finally, a mean score in the "High" range (3.01 – 4.00) signals a high level of the variable, indicating a satisfactory or intense occurrence. The contextual relevance of these mean scores is crucial, as it helps researchers and practitioners gauge the significance of the findings within the specific context of the study, allowing for informed decisions or interventions as needed (Taib, 1996).

Findings and Discussions
a) Demographic Background of the Participants
Table 2 presents the demographic background of the 144 participants from the 13 Chinese National-Type Schools (SJKC) within the Petaling Perdana district, Selangor.

Table 2
Participants' Demographic Background

Demographic Information	Frequency	Percentage (%)
Gender		
Male	50	34.7
Female	94	65.3
Age		
20 – 30	48	33.3
31 – 40	48	33.3
41 – 50	26	18.0
51 or above	22	15.4
Teacher's Option		
TESL	68	47.2
Others	76	52.8
Years of Teaching		
1 – 5 years	40	27.8
6 – 10 years	38	26.4
More than 10 years	66	45.8
Years of Teaching English		
1 – 5 years	60	41.7
6 – 10 years	30	20.8
More than 10 years	54	37.5

The study of demographic data suggests a gender-balanced distribution among respondents, with 34.7% males and 65.3% females. This contributes to the study's diversity of perspectives. Moving on to the age distribution, there is a large representation throughout different age groups, with a significant percentage (66.6%) lying between the ages of 20 and 40. This age diversity gives a wide range of experiences and insights that can influence the findings of the research. In terms of teachers' options, 47.2% of participants are TESLians, while the remaining 52.8% are from other teaching alternatives. Participants' various qualifications may result in differing opinions on integrating CLIL with digital tools in English language learning.

In examining teaching experience, the data showcases a diverse range, with a substantial proportion of participants (45.8%) having accumulated more than 10 years of teaching experience. This suggests that the participants have a lot of pedagogical knowledge and expertise, which may influence their perceptions of innovative teaching approaches. The participants' diverse backgrounds are highlighted further by their English teaching experience, with over one-third of the percentage (37.5%) having more than ten years of experience in the English teaching area. This breadth of knowledge can have a considerable impact on their thoughts on the integration of Content and Language Integrated Learning (CLIL) with digital tools.

b) To what extent does the integration of CLIL with digital tools contribute to the improvement of students' language proficiency in English language learning?

Table 3 presents a comprehensive overview of survey responses, revealing how participants perceive the contributions of integrating Content and Language Integrated Learning (CLIL) with digital tools to improving students' language proficiency in English language learning.

Table 3
The effectiveness of CLIL and digital tools integration in English language learning

Statements	Likert Scale				Mean	SD	Mean Interpre-tation
	1	2	3	4			
1. The integration of CLIL with digital tools enhances students' vocabulary acquisition.	(0) 0%	(2) 1.4%	(108) 75.0%	(34) 23.6%	3.22	.449	High
2. The integration of CLIL with digital tools promotes students' grammatical accuracy and language fluency.	(0) 0%	(6) 4.2%	(120) 83.3%	(18) 12.5%	3.08	.401	High
3. The integration of CLIL with digital tools enhances students' listening and speaking skills in English.	(0) 0%	(4) 2.8%	(106) 73.6%	(34) 23.6%	3.21	.471	High
4. The integration of CLIL with digital tools improves students' reading comprehension skills in English.	(0) 0%	(4) 2.8%	(122) 84.7%	(18) 12.5%	3.10	.380	High
5. The integration of CLIL with digital tools improves students' ability to express their ideas clearly and coherently in writing.	(0) 0%	(6) 4.2%	(110) 76.4%	(28) 19.4%	3.15	.463	High
6. The integration of CLIL with digital tools provides interactive and engaging learning experiences.	(0) 0%	(2) 1.4%	(108) 75.0%	(34) 23.6%	3.22	.449	High
7. The integration of CLIL with digital tools increases students' motivation and interest in learning English.	(0) 0%	(2) 1.4%	(98) 68%	(44) 30.6%	3.29	.486	High

Table 3 presents an extensive examination of participants' viewpoints regarding the integration of Content and Language Integrated Learning (CLIL) with digital tools. By merging the "Agree" and "Strongly Agree" categories for each item, it becomes evident that there is a significant and broad consensus among respondents regarding the beneficial impact of CLIL integration on various aspects of students' language skills. Beginning with Statement 1, the high aggregate percentage of 98.6% (Agree: 75.0%, Strongly Agree: 23.6%) highlights a strong agreement in improving pupils' vocabulary learning. The substantial average score of 3.22 reinforces this optimistic feeling, affirming a strong endorsement of the notion that the integration of CLIL with digital technologies makes a considerable contribution to enhancing students' vocabulary proficiency. Regarding Statement 2, which pertains to enhancing pupils' grammatical precision and linguistic fluency, a total of 95.8% (83.3% Agree, 12.5% Strongly Agree) indicates a high degree of agreement. The average score of 3.08 suggests that respondents generally have a good perception.

Statements 3 and 4 investigate the enhancement of pupils' listening and speaking skills, and their reading comprehension, respectively. The cumulative percentages for both assertions are significantly high, reaching 97.2%. The mean scores of 3.21 and 3.10 further highlight a strong consensus among respondents regarding the beneficial impact of CLIL with digital tools on these essential language abilities. Regarding Statement 5, which pertains to students' proficiency in expressing ideas clearly and coherently in writing, the data indicates a strong positive predisposition. The combined percentage of 95.8% (76.4% Agree and 19.4% Strongly Agree) and a mean score of 3.15 support this conclusion. The outcome suggests that most participants have confidence in the effectiveness of CLIL integration in improving students' writing abilities. Statements 6 and 7 prioritise the provision of interactive learning experiences to enhance students' motivation and interest. The total percentages for both assertions amount to 98.6%, with average mean scores of 3.22 and 3.29, respectively. This indicates a clear consensus among participants about the beneficial effects of CLIL with digital tools in terms of providing captivating learning experiences and promoting motivation.

This study confirms that participants consider the integration of Content and Language Integrated Learning (CLIL) not only as a method to better learners' grammatical abilities, but also as a comprehensive approach that improves learners' vocabulary, fluency, listening, speaking, reading, and writing skills. This is because the Content and Language Integrated Learning (CLIL) lessons allow learners to imitate the natural process of acquiring language through meaningful interactions in the target language (Urmeneta, 2019). According to Celik (2014), CLIL is distinguished by its emphasis on linguistic and meaning-driven instruction, therefore, promoting language development and facilitating the acquisition of subject-specific knowledge. Hu et al (2022) also stated that CLIL fosters an inclusive and enriching learning environment, providing students with opportunities to apply language skills in authentic situations. This leads to increased confidence, and positive attitudes toward the target language, and ultimately results in enhanced language proficiency.

Furthermore, this study provides additional evidence that the integration of Content and Language Integrated Learning (CLIL) is acknowledged for its ability to enhance student engagement and foster motivation, which are crucial factors in language acquisition, as highlighted by (Karmila et al., 2021). Participants perceived that utilising digital tools in CLIL lessons is an effective method to increase engagement and motivation. This can be explained by a study done by Celik (2014) that the collaborative and interactive character of the material and activities in CLIL lessons allows for meaningful use of the target language. Therefore, not only improves learners' language skills but also helps to maintain the interest of learners, as

supported by the research of Zhang and Zhu (2020). Furthermore, Riza and Setyarini (2019) contend that language lessons that encourage active engagement in meaningful discussions and the practical application of knowledge in real-world contexts can effectively address obstacles such as low motivation and speaking anxiety, thereby aligning with the benefits of integrating Content and Language Integrated Learning (CLIL) with digital tools. This is in line with Karmila, Harwati and Melor (2021) that utilising digital tools enhances engagement and enjoyment, hence overcoming obstacles in language acquisition.

In short, this study reinforces that integrating Content and Language Integrated Learning (CLIL) with digital tools goes beyond improving grammatical skills, extending to enhancing vocabulary, fluency, and various language skills. Besides, the integration of CLIL with digital tools emerges as a powerful strategy, not only fostering language skills but also significantly elevating student engagement and motivation. Overall, CLIL, when coupled with digital tools, emerges as a comprehensive and effective pedagogical approach that enhances language proficiency while creating an engaging and motivating learning environment.

*c) **To what extent does the integration of CLIL with digital tools contribute to the revitalisation of English language education in Malaysian primary schools?***

Table 4 exhibits the result of the study, which sheds light on the integration of Content and Language Integrated Learning (CLIL) with digital tools to revitalise English language education in Malaysian primary schools.

Table 4
The effectiveness of integrating CLIL with digital tools in the revitalisation of English language education

Statements	Likert Scale				Mean	SD	Mean Interpretation
	1	2	3	4			
1. The integration of CLIL with digital tools develops students' critical thinking.	(2) 1.4%	(6) 4.2%	(120) 83.3%	(16) 11.1%	3.04	.456	High
2. The integration of CLIL with digital tools fosters students' creativity.	(0) 0%	(6) 4.2%	(114) 79.1%	(24) 16.7%	3.13	.441	High
3. The integration of CLIL with digital tools provides opportunities for collaborative learning among peers and teachers.	(0) 0%	(2) 1.4%	(108) 75.0%	(34) 23.6%	3.22	.449	High
4. The integration of CLIL with digital tools facilitates authentic communication in English.	(0) 0%	(2) 1.4%	(118) 81.9%	(24) 16.7%	3.15	.398	High
5. The integration of CLIL with digital tools enhances students' ICT literacy.	(0) 0%	(6) 4.2%	(106) 73.6%	(32) 22.2%	3.18	.483	High
6. The integration of CLIL with digital tools helps students to understand and appreciate cultural diversity.	(0) 0%	(8) 5.5%	(116) 80.6%	(20) 13.9%	3.08	.435	High
7. The integration of CLIL with digital tools provides real-life contexts for language use.	(0) 0%	(4) 2.8%	(118) 81.9%	(22) 15.3%	3.13	.408	High

The survey results, which are displayed in Table 4, unequivocally indicate that participants held a steadfastly positive view of the integration of digital tools into Content and Language Integrated Learning (CLIL) in revitalising English language education in Malaysian primary schools. First and foremost, the integration is highly helpful in cultivating students' critical thinking skills, as indicated by an outstanding 94.4% of participants (83.3% Agree, 11.1% Strongly Agree). This is further supported by the high mean score of 3.04. Participants believe that this integration helps in the development of learners' critical thinking skills as it stimulates learners to participate in English activities that are rich in content. This is consistent with the study done by Egorova (2022); Riza and Setyarini (2019), which highlight that learners actively participating in meaningful and interactive discussions can enhance their critical thinking and problem-solving skills.

In a similar vein, the survey findings indicate a significant agreement among participants regarding the beneficial effects of digital tools integrated into CLIL on the development of creativity. A considerable 95.8% of the participants (79.1% agreed and 16.7% strongly agreed) recognised the contribution of these tools, yielding a noteworthy mean score of 3.13. This integration is perceived to foster creativity, a highly valued quality in the modern world. To cultivate creativity, students must utilise a range of methods including idea generation, concept development, critical evaluation and refinement of ideas, and comprehension of the limitations involved in implementing new concepts in practical scenarios (Eng et al., 2021; Obari, 2021). Creating purposeful instructional activities is essential for fostering learners' creativity, and Content and Language Integrated Learning (CLIL) combined with digital tools has been proven to be helpful in achieving this goal. It not only enables the acquisition of subject-related knowledge Hu et al (2022) but also provides genuine and meaningful language learning experiences (Omar et al., 2020).

Additionally, the data reveals a substantial agreement among the participants, with a combined percentage of 98.6% (with 75% agreeing and 23.6% strongly agreeing) concerning the collaborative learning opportunities offered by CLIL with digital tools. This resulted in an impressive mean score of 3.22. Likewise, an overwhelming mean score of 3.15 indicates that 98.6% of the participants (strongly agree: 16.7%; agree: 81.9%) agree that the integration facilitates authentic communication in English. The integration of Content and Language Integrated Learning (CLIL) with digital tools lays a notable emphasis on cultivating collaboration as well as communication abilities. By introducing group projects and activities into CLIL lessons, students are motivated to collectively grasp the subject matter and proficiently communicate in English. This viewpoint aligns with Egorova's (2022) assertion that CLIL intrinsically fosters collaboration and communication by offering lessons that facilitate genuine and meaningful language-learning encounters. These experiences entail language learners actively participating in communication to achieve meaningful objectives and work together to accomplish tasks.

Furthermore, there is significant consensus regarding the improvement of students' ICT literacy (95.8%, with 73.6% agreeing and 22.2% firmly agreeing). This consensus is reflected in a noteworthy mean score of 3.18, which emphasises the encouraging progress achieved in the integration of digital tools into CLIL lessons. The integration of Content and Language Integrated Learning (CLIL) with digital tools not only improves students' Information and Communication Technology (ICT) literacy but also strengthens their proficiency in this area. Integrating digital tools into CLIL lessons offers students valuable access to a wide range of interactive resources and platforms designed to enhance their language proficiency Hung (2021); Li and Lan (2022) as well as equip students with the necessary digital literacy skills to

effectively access, assess, organise, and acquire information (Chowdhury et al., 2021; Georgsen and Zander, 2021). This strategy not only simplifies the process of learning a language but also allows students to improve their proficiency in using information and communication technology.

Besides, the integration is widely acknowledged by participants as a catalyst for fostering cultural understanding, as evidenced by the average score of 3.08 and 94.5% agreement (with 80.6% agreeing and 13.9% strongly agreeing). This is in line with Coyle, Hood, and Marsh (2010), Content and Language Integrated Learning (CLIL) offers students prolonged exposure to a non-native language and authentic opportunities to use it in various contexts, fostering cultural understanding by immersing learners in diverse cultural settings. This cultural awareness holds significance as it helps mitigate assumptions, biases, and stereotypes, thereby enhancing the potential for effective collaboration (Kaing, 2022). By providing content infused with diverse ideas and values, CLIL cultivates an open-minded approach among learners, utilizing social and cultural diversity to stimulate the generation of new ideas, promote innovation, and elevate the overall quality of work (Tight, 2021).

Lastly, an overwhelming majority of 97.2% of participants (81.9% in agreement and 15.3% strongly in agreement) recognised that this strategy offers real-life scenarios for language use. The average score of 3.13, classified as high, signifies a strong level of consensus among the participants. This is vital because it teaches life skills that are essential for living in the twenty-first century, such as the ability to embrace diverse perspectives, welcome feedback, adapt to change, manage time efficiently, and create a proactive learning attitude (Kaing, 2022; Tight, 2021). Furthermore, with the help of the right digital tools, students can learn at their own pace and obtain access to language resources and activities whenever and wherever they like (Karmila et al., 2021). This not only fosters effective time management skills but also cultivates a proactive learning mindset, demonstrating a robust dedication to lifelong learning which is an essential quality in the contemporary career path.

In summary, the study reflects unanimous consensus on the positive impact of integrating CLIL with digital tools, particularly in enhancing critical thinking, fostering creativity, facilitating collaborative learning, promoting authentic communication, improving ICT literacy, nurturing cultural understanding, and providing real-life language scenarios essential for career readiness. These findings strongly affirm the efficacy of the CLIL and digital tools integration in revitalizing English language education in Malaysian primary schools.

Limitations and Recommendations

The study has certain limitations, notably the exclusive focus on participants from thirteen Chinese National Schools situated in an urban district, potentially restricting the generalization of findings to all primary schools in Malaysia. To enhance the robustness of research outcomes, it is advised that similar investigations be conducted in suburban and rural schools, as well as across diverse school types such as National Schools (SK) and National Type Tamil Schools (SJKT). Further investigation will determine whether these findings are consistent with or differ from those of the present study. Furthermore, it is recommended that future studies thoroughly investigate the challenges associated with this innovative teaching approach. Conducting such an investigation could yield a broader understanding of possible challenges that could hinder the efficacy of this approach, offering valuable insights for policymakers aiming to implement changes that better prepare the future generation for the demands of the modern world.

Conclusion

This study endeavours to unlock the potential of integrating CLIL with digital tools in English language education in primary schools. Data was collected from fourteen Chinese national schools located in an urban district for the study. The results indicate that the implementation of this innovative teaching approach significantly improves students' language proficiency, which includes proficiency in grammar, accuracy, fluency, and the four language skills: listening, speaking, reading, and writing. Furthermore, the integration of digital tools and the natural setting of CLIL lessons serve as catalysts for enhanced student motivation and engagement in language learning, thereby promoting language proficiency. Additionally, it is believed that this integration has the potential to equip students with the 7Cs—critical thinking, creativity, collaboration, communication, computing and ICT literacy, cultural awareness, and career readiness—to better prepare them for the challenges of the modern era. This study is significant as it offers a comprehensive and forward-thinking approach to primary English language education in Malaysia. However, similar studies should be undertaken in suburban and rural schools and across school types like National Schools (SK) and National Type Tamil Schools (SJKT) to enhance research robustness. Future research should also examine the challenges of integrating CLIL with digital tools to better understand it and enlighten policymakers to design an educational system that can prepare the future generation for the demands of the modern world.

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