
RESEARCH ARTICLE

Motivations for Information Communication Technology (ICT) Use in EFL Teaching: An Exploratory Study of Primary School Teachers in Vietnam

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ABSTRACT

Humans can be driven to behave by the perceived values of the behavior, or a certain force and motivation are assumed to be a factor guiding and energizing people's behaviors. This study aimed to investigate what motivates primary school teachers in an underprivileged area of Vietnam to integrate ICT into their EFL teaching. Seven participants from different primary schools in Daklak, a mountainous province, were recruited to take part in one-on-one interviews that lasted 30 to 40 minutes. The interview guide was constructed by the researcher and sent to experts for feedback. Interviews were carried out in Vietnamese on the Skype platform. They were videotaped and transcribed afterwards. Relevant parts of the interviews were translated into English. The findings revealed four categories of motivations, including *instructor-related motives*, *learner-related motives*, *accessibility-related motives* and *the user-friendliness of ICT*. Consequently, the research findings provide valuable insights into how to motivate EFL primary school teachers in underprivileged areas to integrate ICT into their classroom practices, which are beneficial for educators, policymakers, and curriculum developers.

KEYWORDS

ICT, motivation, primary school teachers, rural areas, EFL teaching

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1. Introduction

Humans have experienced successive shockwaves since COVID-19 emerged (Schleicher, 2020). The World Health Organization recognized COVID-19 as a global pandemic on March 11th, 2020 (WHO Director-General, 2023). When social distancing regulations came into force, almost all schools around the world were closed, and many of them underwent an unexpected and unready transition to online teaching and learning with the hope of maintaining educational activities (Marinoni et al., 2020). Challenges caused by this public health crisis have created favorable conditions for the blossoming of ICT development in education (Southeast Asian Ministers of Education Organization, 2020). As a result, teachers no longer consider whether or not to use ICT in their classrooms. Instead, they must manage to adapt to the new situation.

The use of ICT in teaching has been researched for decades, and its impacts on both teachers and students have been revealed in multiple prior studies. ICT is defined as "a diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information" (UNDP, 2001, p.2). Volman and Vaneck (2001) claimed that ICT provides a great educational atmosphere and allows not only teachers but also learners to access knowledge actively. Technological tools can help students reach their full potential, change their way of studying and brainstorming, and offer them a pathway to a new horizon of knowledge regardless of geographical boundaries (Peck & Dorricott, 1994). In detail, Peck and Dorricott (1994) pointed out that there are ten positive impacts of technology use: 1) technologies are able to suit different groups of learners and allow them to

grow at their own pace; 2) technology-mediated teaching helps equip learners with principal and necessary skills of a citizen in the information age; 3) technology has the potential to increase the productivity of learners' performances, especially thinking and writing abilities; 4) Frequent exposure to ICT helps improve students' complex problem-solving skills, which cannot be taught traditionally or passed directly from teachers to students; 5) Students' hidden artistic talents can be uncovered and nurtured thanks to technology; 6) Technology allows students to exploit accessible resources beyond the four-wall boundaries of classrooms; 7) Technology-mediated learning can connect learners to the world and increase the practicality of their work or products; 8) Technology provides learners with a diverse range of learning tools and experiences; 9) Students find it more comfortable and fun to study on technology platforms or with the assistance of technology; 10) Finally, technology improves the quality and efficiency of teaching and learning at school. In a word, regardless of the worldwide unprecedented impact of the Covid-19 epidemic on education, technology is still well worth being implemented in schools due to its significant advantages.

Many countries heavily invest in ICT infrastructures in order to improve the effectiveness of teaching and learning (Nut, 2010). Nonetheless, numerous studies reveal low use of ICT in classroom teaching (Hew & Brush, 2007), even though teachers show positive attitudes toward ICT use (Mirzajani et al., 2016) and believe in the benefits of ICT integration to students' learning (Hew & Brush, 2007). Similarly, Coll et al. (2009) confirmed that there are no significant changes in classroom teaching. Moses (2006) also echoed this finding and added that even teachers with advanced ICT skills are rather hesitant to utilize it. This study aims to examine what motivates teachers to use ICT in their teaching activities.

According to Mahdum et al. (2019, p.289), motivation, or motive, refers to "a driving force that influences the readiness to start doing a series of activities" and shows how much effort individuals invest in reaching their aims. Comparatively, Pinder (2008, p.11) paid more attention to the origins when defining motivation and stated that motivation could be interpreted as "a set of energetic forces" that derives from both inside and outside individuals, helps to shape and direct their behaviors as well as determines the level of effort and consistency toward their targets. Similarly, Ryan and Deci (2000) suggested two types of motivation: *intrinsic* and *extrinsic motivation*. *Intrinsic motivation* refers to people engaging in activities that are intrinsically interesting or satisfying to them, whereas *extrinsic motivation* is associated with the consequences of actions (e.g., grades, rewards, promotion). They explained that motivated people are those who are "moved to do something", inspired or powered up to take action toward a goal. For the purpose of this paper, Ryan and Deci's definition of motivation is adopted.

Accordingly, teachers can be motivated to use ICT in their teaching because they find it intriguing, enjoyable or satisfying (intrinsic motivation) and/or they are aware of its consequences (extrinsic motivation). Numerous prior empirical studies in this sector reveal inconsistencies in teachers' motivation to adopt ICT in teaching practice across countries. For instance, teachers from a disadvantaged region in the Western Cape reported that their ICT use in classroom teaching is affected by the availability of technical support and ICT resources, their sense of enjoyment, commitment, and accomplishment, and their students' willingness to study with ICT (Chigona et al., 2014)). As for Iranian teachers, apart from relevant background knowledge, skills, and adequate ICT facilities, they are encouraged to adopt ICT with sufficient support from institutional leaders and policy documents from upper state levels (Mirzajani et al., 2016). Hence, it would be of special intrigue to explore teachers' motivation to use ICT in their EFL teaching in the Vietnamese context.

Taking regional characteristics into account, the author shifted the research focus to EFL teachers working at primary schools in rural areas, which can be considered to have more disadvantages in facilities, life quality, technological investment, and so on, compared with urban areas. In this work, rural areas, underprivileged areas, and developing areas are all used interchangeably. There is evidence that disadvantageous conditions can demotivate teachers' ICT use in teaching. Firstly, there is a shortage of basic ICT facilities and relevant resources in rural schools (Dzansi, 2014; Hasin & Khalid M. Nasir, 2021). Secondly, teachers in these schools have not received sufficient ICT training, which leads to their limited ICT competence (Ogembo et al., 2012) and, perhaps, their unwillingness to use ICT. For this qualitative study, EFL teachers from a developing mountainous province in Vietnam were recruited to participate in the project.

According to Peeraer and Van Petegem (2011), Vietnam is an interesting case for conducting research on ICT integration. The Prime Minister has signed the Decision no. 131/QĐ-TTg on the approval of the Project on strengthening the use of information technology and digital transformation in education and training from 2022 to 2025, with an orientation to 2030, dated January 25th, 2022. The primary goal is to digitize the entire education system and equip it with a fully developed national online teaching and learning platform. Therefore, it can support 100% of learners and teachers in effectively participating in online educational activities by 2030. The decision also emphasizes the full equipment of all educational resources and educational programs in the digital environment by 2030 as a main objective of the project. Therefore, the project is expected to bring about a comprehensive revolution in ICT integration throughout the entire national education system. Accordingly, EFL teaching, the focus of this study, is undeniably a part of the revolution.

A qualitative research design was employed in this study because the author was interested in advancing the understanding of EFL teachers' perceptions and experiences in using ICT in their teaching (Fraenkel & Wallen, 1990), especially what they do with ICT and what inspires them to do so. Each individual has a different amount of motivation and different kinds of motivation for a particular activity (Ryan & Deci, 2000). Therefore, one-on-one interviews can work well for these purposes when taking into account individual differences (Creswell & Creswell, 2018). Accordingly, the study seeks the answer to the following question.

What motivates teachers to implement ICT in EFL teaching in underprivileged areas of Vietnam?

2. Literature Review

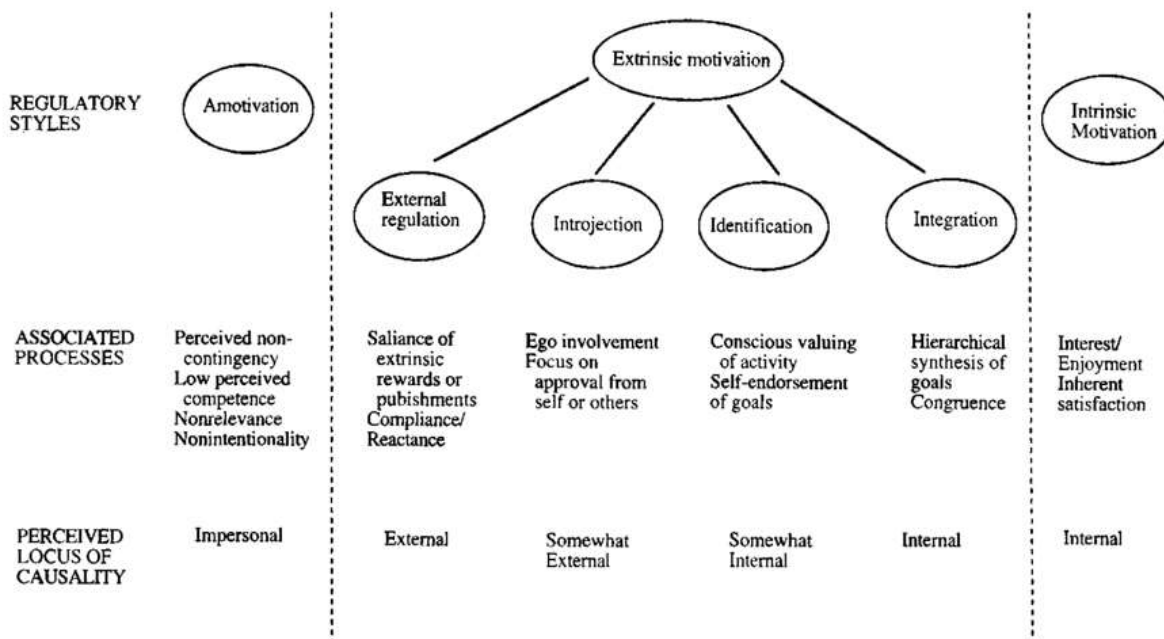
2.1 Theories of motivation

Ryan and Deci (2000, p.54) defined that "To be motivated means to be moved to do something" and "a person who feels no impetus or inspiration to act is thus characterized as unmotivated, whereas someone who is energized or activated toward an end is considered motivated". They also highlighted the two most basic categories of motivation that have long been studied: intrinsic and extrinsic motives. Intrinsic motivation refers to an individual's interest or pleasure in performing a certain behavior, whereas extrinsic motivation is associated with prospective results following the execution of an action (Ryan & Deci, 2000). There are four types of extrinsic motivations, which are categorized based on the increasing order of autonomy levels from the left to the right of Figure 1. For the purpose of the study, Amotivation, which refers to the state of doing something without intentionality, is not taken into account.

The least autonomous form of extrinsic motivation, according to Ryan and Deci (2000), is called *External Regulation*. People are moved to do activities by this type of motivation since they expect rewarding results from their performance, or they fear punishments for not performing them. This type of motivation possesses features similar to instrumental orientation, which is described by Gardner (1985) in his three-component theory of motivation to learn a second language. The second type is labeled *Introjection*, which is more autonomous than the previous category but still in control as individuals execute an activity because of their egos or self-esteem. *Identification* is the third group of motivation. Those who take actions driven by this kind of motive are aware of the significance of their behaviours. As a result, they regulate themselves to reach goals. The final type of extrinsic motivation is also the most autonomous and self-determined one, which is *Integration*. It features the congruence between new regulations and one's needs or values. In other words, reasons for engaging in an activity match individual demands or desires.

Figure 1

A Taxonomy of Human Motivation (Ryan & Deci, 2000, p. 61)



Apart from Ryan and Deci's taxonomy, there are a number of human motivation theories proposed by different authors. For example, Maslow (1954) developed the needs hierarchy system with five groups of needs, i.e., psychological needs, safety needs, social needs, ego needs, and self-actualization needs, arranged in increasing order from the basic to the advanced ones. According to Maslow (1954), human beings are motivated to satisfy their basic needs before being encouraged to fulfill the higher-level ones.

Unlike Maslow (1954), Herzberg's (1987) formulated the *motivation-hygiene theory*, postulating a dichotomy between motivating factors that lead to individual satisfaction at work and hygiene factors that can cause personal job displeasure. Herzberg (1987) emphasized that satisfiers are internal factors (e.g., *achievement, responsibility, growth*), whereas dissatisfiers are external factors (e.g., *supervision, working conditions, status, salary*).

Considering the theories reviewed so far, Ryan and Deci's taxonomy appears to be the most relevant to the research aim of exploring what motivates Vietnamese teachers at rural primary schools to use ICT in EFL teaching.

2.2 Teachers' motivation to use ICT in teaching

A large and growing number of empirical studies have investigated teachers' motivation to use ICT in teaching for the past few decades. There have been two dominant tendencies of how teachers' motivation is researched and explained in previous studies. Numerous researchers use technology acceptance models which originate from social psychology to explicate what stimulates the uptake of ICT use in teaching. For example, Wong et al. (2013) published a paper in which they applied the Unified Theory of Acceptance and Use of Technology (UTAUT; Venkatesh et al., 2003) to investigate what affects teachers' use of interactive whiteboards. The results revealed that *performance expectancy, effort expectancy, and users' experiences* have a significant influence on teachers' usage behaviors. In 2019, Teo and Huang used the technology acceptance model (TAM; Davis, 1989) to examine what affects teachers' intentions to use technology in a developing Asian country – China. The results confirmed the influence of three constructs, i.e., *perceived usefulness, subjective norms, and attitudes towards use*, as well as demonstrated the effect of *culture* on the technology uptake of Chinese teachers. Another investigation into the Indonesian teachers' ICT use in teaching practice (Yusop et al., 2021) not only proved the relevance of the theory of planned behavior (TPB) to the research topic but also indicated the predicting roles of *behavioral beliefs, normative beliefs* and *control beliefs* towards the use of ICT.

Others ended up with various motives, such as support from administrators (Mirzajani et al., 2016), teachers' computer experience (Meelissen & Drent, 2008), pleasant classroom atmosphere (Ounis, 2016) and so on. These motives stem from schools or educational institutions, higher educational state levels, students, ICT or teachers themselves.

Regarding motives deriving from educational institutions, teaching resources, teaching environment or working conditions, ICT facilities, support from ICT technicians and school leaders are reported to have an influence on teachers' ICT use (Chigona et al., 2014; Liaw et al., 2007; Mirzajani et al., 2014). Additionally, directives, policies, teachers' salaries and workload, which are defined by upper state levels, are proven to encourage or discourage teachers from integrating ICT into their instruction (Buabeng-Andoh, 2012; Mirzajani et al., 2014; Schulz et al., 2015). These motives function as extrinsic motivations, explaining teachers' usage of ICT in their teaching.

Concerning teachers, a wide range of intrinsic motives have been found in previous findings. For instance, Chigona et al. (2014) drew conclusions that teachers are inspired to adopt ICT since they expect to gain a sense of achievement and gratification at work. With the aid of ICT tools, they are able to exhibit their creativity by trying new pedagogical ideas. Besides, they are aware that ICT integration in teaching is a vital part of their duty, required by school leaders and higher-level authorities. In a similar vein, Ounis (2016) and Pima (2019) highlighted that the contentment and fulfillment derived from employing ICT in their instructions are motivations as well. In addition, other aspects such as emotions, ICT skills and knowledge, and experience are also demonstrated to greatly influence their acceptance of ICT (Buabeng-Andoh, 2012; Mirzajani et al., 2014). Logically, ICT skills, ICT literacy and experience can be enhanced by relevant teacher training. Therefore, it is understandable why appropriate training is also emphasized in prior studies as a motivating or demotivating factor of teachers' ICT use (Schulz et al., 2015).

Turning to ICT itself, the more pedagogical features (e.g., quick feedback, lively illustration, progress tracking) it possesses, the more likely it can be used (Stott & Neustaedter, 2013). There is a consensus among researchers that most teachers use ICT owing to its substantial benefits for their teaching practice, for instance, creating a pleasant classroom environment, drawing learners' attention, increasing learners' autonomy, and making use of available sources (Pima, 2019; Uluyol & Şahin, 2016). Other authors found that the friendliness of ICT, or easy operation in other words, is considered one of the critical motivators of teachers' ICT adoption (Sinha & Bagarukayo, 2019; Zhou & Teo, 2017). In fact, these findings coincide with the constructs of *perceived usefulness* and *perceived ease of use* in TAM developed by Davis (1989).

3. Methodology

3.1 Qualitative Design

In order to explore what motivates teachers to use ICT in teaching and collect "subjective opinions" and "feelings" of participants (Dörnyei, 2007, p. 38) about the phenomenon being studied, a qualitative approach is the best option. It suits the purpose of exploring emerging themes (Eisenhardt, 1989), and in addition to gathering individual perceptions, it also helps clarify the underlying reasons. Therefore, an in-depth description of the nature of the issues can be obtained thanks to this research paradigm. In terms of generalizing the research outcome, as cited by Dörnyei (2007, p. 40), Duff (2007) stated that.

Instead of seeking generalizable ‘correct interpretation’, qualitative research aims to broaden the repertoire of possible interpretations of Human Experience. Thus, the rich data obtained about the participants’ experience can widen the scope of our understanding and can add data-driven (rather than speculative) depth to the analysis of a phenomenon.

3.2 Participants

Seven female English teachers working at primary schools in Daklak province, Vietnam, were recruited in the study. Their age ranged from 28 to 40. The youngest teacher had three and a half years of teaching experience, while the oldest one had been teaching for 20 years. They volunteered to participate in the project after being provided with a brief description of the research purposes. They come from seven different primary schools with dissimilar conditions of facilities and infrastructures supporting ICT integration in teaching. Two out of seven teachers are currently teaching in the city center. The rest are working in different districts of the province. All of the teachers reach level B2 and above (see Table 1), which is a compulsory requirement for English teachers at primary educational institutions. They are referred to by pseudonyms in the study.

Table 1
Background Information

Pseudonym	Age	Teaching experience	School location	Level of proficiency
Hannah	40	20 years	City	B2
Sophia	38	15 years	District	B2
Ella	28	3.5 years	District	B2
Emily	32	10 years	City	B2
Mia	35	10 years	District	B2
Emma	30	8 years	District	C1
Nora	32	10 years	District	B2

3.3 Instrument

In this study, data was collected by conducting structured interviews according to an interview guide, which was devised and piloted by the researcher, following the design instructions of Dörnyei (2007). The interview guide contained pre-prepared questions and additional explanations or examples. Using this kind of instrument could guarantee that the interviewees do not go off-topic. Moreover, the process of coding could probably require less effort, thanks to the adoption of a structured sheet of questions. The interview guide aimed to gain rich information to address the research question, “*What motivates teachers to implement ICT in EFL teaching in underprivileged areas of Vietnam?*”

Based on the relevant literature and theories, I started collecting my initial thoughts and formulating questions to construct the interview guide. The first version of the interview guide was sent to an expert for comments. She recommended including two questions to examine the teachers’ current use of ICT in lesson preparation and their access to technology use at school. The guide was adjusted according to her advice and subsequently sent to another expert. This time, I was instructed to organize the questions into four groups and add more questions to each one. The interview guide went through considerable changes after this step. It finally included four groups of questions. The first group focused on gathering background information, followed by a group of questions about the usefulness of ICT in teaching. The next group aimed to explore teachers’ perceptions of the complexity of ICT. The last group turned to examining the usefulness of ICT in learning. Each question group in the interview guide started with easy questions so that participants felt comfortable and relaxed at the beginning. The subsequent questions focused on the main content being studied. The closing question “What else would you like to add?” was placed at last to end the section.

After carrying out the first pilot interview, I found that it was necessary to provide the definition of ICT before interviewing the participants. Moreover, it became apparent that I needed to explain two questions, one of which contained a general term (learning motivation) and the other was too ambiguous for participants to answer (i.e., How does technology involve students in learning activities?). The second pilot interview revealed the same issues as found in the first one. Besides, three other phrases (i.e., teaching performance, learning performance, attitudes) and one question concerning the role of ICT in teaching different kinds of learners

in the same class appeared to confuse the participants. To address these issues, I prepared some explanations and examples to be used in the upcoming interviews.

3.4 Context

Due to the Covid-19 pandemic, many countries in the world decided to close all schools and educational institutions, and Vietnam was no exception. The participants from this study came from seven state-owned primary schools. These schools, together with all other educational institutions in Vietnam, closed for about four months during the first wave of Covid 19. The Ministry of Education and Training (MOET) encouraged the conduct of online learning and teaching, which resulted in a sudden increase in the use of ICT at schools.

The seven schools in the present study are located in Daklak, a mountainous province in the Central Highlands. This province is considered a developing area with numerous ethnic minority groups living together and continues to receive special attention from the government. Students begin learning English as a compulsory subject when they reach Grade 3, while students in Grades one and two study it as an elective one. Each school shows a different level of interest in encouraging ICT use among teachers.

3.5 Data collection and analysis

Due to the restrictions during the COVID-19 pandemic, all interviews were conducted online via Skype. The interviews took place between March 31st and April 3rd, 2021, and each interview lasted about 30 minutes. They were recorded and transcribed afterwards. The data analysis consisted of four phases, which I adopted from Dörnyei's suggestions (2007). Firstly, all interviews were transcribed utilizing the computer-assisted feature of voice-to-text input. It is undeniable that I became familiar with the data thanks to this step. Secondly, I started reading the transcripts repeatedly, highlighting the text that might address my research question, and placing the highlighted pieces of text in an Excel file. These chunks of words were later attached to informative labels, which could be considered initial codes in this case. Some of my initial thoughts on themes coming to mind during this stage were noted down in a research memo. In the third phase, these labels underwent the process of further reflection to be grouped into different themes and then to be placed under relevant categories. Finally, it was the stage for interpreting the data and generating conclusions. All thoughts on data interpretation that occurred since the onset of the analytical process were collected and reported, forming a strong base to draw conclusions.

4. Results and Discussion

The data analysis revealed four emerging themes, namely *instructor-related*, *learner-related*, *accessibility-related motives* and *User-friendliness of ICT*. During the process of coding, I found a connection between semantic codes and self-determination theory (SDT; Deci & Ryan, 1985). Later on, the decision was made to adopt this theory in grouping preliminary codes under themes and categories. This idea considerably contributed to the reduction of themes or categories overlapping. Besides, the time spent on this step was reduced as well. A more detailed report on results and discussion about these factors is presented below.

4.1 Instructor-related motives

Motives related to this group were divided into two subgroups: intrinsic motives and extrinsic motives. Regarding extrinsic ones, one of the participants mentioned standards of knowledge and skills required by the Ministry of Education and Training (MOET). She believed that using ICT in teaching could help teachers meet these external demands more straightforwardly. To express her idea, Sophia said:

Compared with the traditional approach, we prepare lessons more quickly with the aid of technology. We not only meet the requirements of MOET about knowledge and skill standards but also improve students' autonomy and creativeness.

Interestingly, pressure from several examinations for teachers was found to encourage teachers to learn, explore, and then apply technologies in their work later. This opinion was described by Sophia: "Editing videos took me plenty of time before. During the period I was preparing for the best teacher contest, I practiced a lot. Now, I am good at it". According to the taxonomy of human motivation proposed by Ryan and Deci (2000), these demands from MOET constitute external regulation. This finding corroborates the ideas of previous researchers (Buabeng-Andoh, 2012; Mirzajani et al., 2014; Schulz et al., 2015) about the influence of directives and policies on teachers' ICT adoption.

Introjected regulation motives found in this study are associated with what learners thought about their teachers. Sophia explained her idea as follows:

When teachers integrate ICT into their teaching, especially the latest technologies, students show their deep respect for teachers' work. My students always express their admiration towards innovative teachers more

than those who do not or rarely apply technologies in their teaching. Tech-savvy teachers tend to receive sincere admiration from their students.

In a similar vein, Emily added, "Teachers look more professional and tech-savvy when they show their mastery of technology". Hannah, Mia, Emma and Nora also reached a consensus on the role ICT plays in enhancing the professional images of teachers when they incorporate technological applications. This result is consistent with the findings of Teo and Huang's (2019) and Yusop et al.'s (2021) study, in which subjective norms and normative beliefs were respectively identified as key factors motivating teachers to utilize ICT in their teaching practice.

Regarding a more autonomous form of extrinsic motivation called *identification*, the results revealed a lengthy list of goals for ICT utilization. All goals were associated with the perceived usefulness of ICT in teaching and lesson preparation, aligning with the research findings of Teo and Huang (2019). Participants agreed that ICT improved teaching quality by providing engaging games, vivid illustrations, and a wide variety of interesting teaching activities. Ella shared, "ICT integration can reduce teachers' speaking time in class". No one denied the fact that ICT-integrated lessons were more interesting than traditional ones. In terms of lesson preparation, one aspect emphasized by interviewees was time- and money- efficiency. In Mia's opinion, "ICT helps me create more tasks for students' further practice". Nora and Hannah expressed their preference for ICT adoption because it allows their lessons to be reused in the future with minor adjustments. These findings further support the idea of Wong et al. (2013) that *performance expectancy* and *effort expectancy* contribute to driving teachers to adopt ICT in their teaching.

Finally, the most autonomous type of extrinsic motivation is *integration*. Deci and Ryan (2000, p. 62) described this as follows: "Integration occurs when identified regulations have been fully assimilated to the self". Based on the results of the data analysis, only a limited number of motives related to this form were presented by the teachers. Ella explained that she used ICT to enhance the accuracy level of pronunciation in her teaching, which was beneficial for the self-correction of her learners and was expected by parents and educational administrators. These findings not only confirm the association between useful pedagogical features and teachers' decisions to incorporate ICT, as mentioned by Stott and Neustaedter (2013), but they also reinforce the role of others' expectations in teachers' adoption of ICT in teaching, as highlighted by Yusop et al. (2021) and Teo and Huang (2019). Another benefit was that ICT was regarded as the most efficient teaching aid for accommodating different groups of learners with varying expectations. Nora's words reflected this perspective: "I can be very flexible in my teaching. I can provide additional practice for outstanding students without interfering with other students. With technology support, I can cater to all learner groups of varying capacities".

Sophia shared a similar belief when she said, "ICT helps meet the needs of various student groups". This result confirms the impact of pedagogical usefulness on teachers' utilization of ICT (Stott & Neustaedter, 2013).

Subsequently, there are two categories under intrinsic motivational factors: feelings of competence and a sense of autonomy (Deci & Ryan, 2000). The significance of autonomy in teachers' ICT utilization has resonated in the present study. Mia's statements truly describe this notion. She put it this way,

In addition to the official training sessions organized by the Department of Education and Training, I also attended online courses on ICT implementation in teaching. I follow Microsoft innovative experts' (MIE) instructions as well and put them into practice afterwards.

It is apparent that Mia autonomously equipped herself with adequate knowledge of ICT application by enrolling in online courses, thereby enhancing her ICT use in both teaching and lesson preparation. Sophia believed that "Regular ICT use is beneficial for teachers to keep up with the latest technologies", underscoring the importance of autonomy in embracing technology frequently. In a similar vein, Emily revealed that she did not want to be an outdated teacher or appear more old-fashioned than her young learners. Participants demonstrated that they adopted ICT because they personally found it interesting and exciting to do so, which resonates with the predictive role of teachers' emotions in teachers' ICT integration (Ounis, 2016; Pima, 2019).

Similarly, Hannah also admitted that she was enthusiastic about investing time in integrating ICT into teaching and lesson preparation. In terms of creativity, Nora stated, "Children are easily bored with something familiar, so if you keep repeating the same thing, they will certainly become disinterested". For Nora, this serves as a motivation to constantly renew her teaching activities with the enormous help of ICT. However, she also described some challenges she had encountered. She mentioned, "I think I am slower than my colleagues in learning and adopting these things. Some software or applications come with supporting programs. I am not good at finding and downloading them".

Therefore, it is evident that teachers' capacity to deal with ICT can be a source of demotivation in preparing and conducting ICT-enhanced lessons. Mia's words also align with this point. She said:

I am pretty confident in using ICT, and I believe my skills are now better than they were several years ago. I know there is always more to learn, but my ICT skills are now adequate for my work.

Mia acquired her ICT skills through her relevant experience. Therefore, it is undeniable that prior relevant experience plays a predictive role in teachers' behaviors regarding the adoption of ICT in classroom teaching, which is in agreement with the perspective of Meelissen and Drent (2008).

4.2 Learner-related motives

Unlike instructor-related motives, all learner-related ones were based on teachers' beliefs about the usefulness of ICT adoption for the students. In the interviews, participants' words focused on learner-related goals that teachers aimed to achieve when teaching with ICT assistance. Therefore, all motives in this group are extrinsic ones, labeled as identification according to SDT (Deci & Ryan, 1985). The results revealed that teachers were motivated to work with ICT when they found it beneficial for students' learning or, in other words, when they perceived its usefulness (Teo & Huang, 2019). Ella shared the following idea with me: "ICT not only supports teachers but also allows students to access authentic language resources", which echoes findings in previous studies (Chigona et al., 2014; Liaw et al., 2007; Mirzajani et al., 2014). In agreement with this idea, Mia added, "It is undeniable that learners' listening skills improve because they frequently watch videos with native accents". Besides the perceived significance of ICT in language learning, student's ICT knowledge is also enriched. Hannah expressed the opinion as follows: "ICT-integrated lessons promote students' skill development in using computers or technologies in the 4.0 era". Additionally, participants conveyed their beliefs in the fact that utilizing ICT can create a relaxing learning atmosphere in classrooms, provide multiple opportunities for students to interact with modern equipment such as teacher robots, interactive boards, and virtual learning objects, reduce students' heavy dependence on teachers, and ultimately increase students' exposure to differentiated mindsets.

In terms of learning productivity, participants reported that students found it less challenging to grasp the main ideas in ICT-integrated lessons. Emma laid stress on the role of reducing students' misunderstanding and off-topic interpretation, while Mia highlighted the increasing level of students' self-reflection, saying, "Students use mobile phones to record their speaking at home, and later they can watch themselves speak". Finally, Nora affirmed, "My teaching has become more flexible thanks to ICT support. I can encourage outstanding students to practice further while still taking care of the other students. ICT helps me cater to all groups of learners". It can be said that ICT offers practical pedagogical strategies for addressing learners of varying levels, which supports the notion put forth by Stott and Neustaedter (2013). They claimed that teachers are more inclined to use technologies that possess valuable pedagogical attributes, for example, prompt feedback, appealing visuals, and the capability to track learners' progress.

Moreover, interviewees acknowledged that learners' autonomy had increased thanks to regular ICT-integrated lessons. They were willing to participate in learning activities, explore new technological features, concentrate more intensively on lessons, exhibit greater curiosity, and minimize their delays in doing homework. Furthermore, students' enjoyment was identified as a strong motivation for teachers to integrate ICT into their teaching practices. All participants agreed that using ICT in teaching enhanced learners' levels of enjoyment, excitement, and happiness. Nora and Emma shared the belief that learning with ICT could satisfy students' expectations by allowing them to engage in their favorite activities, such as singing, dancing, and playing games. Not only that, Hannah asserted that learning with ICT could help students become tech-savvy citizens in the era of artificial intelligence and cloud computing. In summary, all participants expressed a strong belief in the significant positive impact of ICT usage on learners, as referred to as *perceived usefulness* in the research by Teo and Huang (2019).

4.3 Accessibility-related motives

The findings in this section not only further support the association between ICT facilities and teachers' ICT adoption in prior studies (Chigona et al., 2014; Liaw et al., 2007; Mirzajani et al., 2014) but also confirm the role of relevant training for teachers in their actual ICT integration (Schulz et al., 2015).

Specifically, in this study, the third group of motives driving teachers to utilize technology pertains to the availability of equipment favorable for ICT incorporation and policies for training teachers on how to use certain technology in their work. Most of the schools in this study were equipped with internet connections and smart televisions. Only one school in the city center was invested in a wide range of modern teaching aids, including active boards, teacher robots, 3D object projectors, with the investment of the National Foreign Language Project 2020. ICT-integrated lessons cannot be conducted without fundamental equipment. Therefore, the lack of essential facilities can become a demotivating factor for teachers. Power cuts were emphasized as a significant issue by half of the participants. Hannah's words provide an apt summary:

If everything is well-prepared, such as good internet access and no issues with the computer, teachers can receive maximum support from ICT. ICT helps me a lot with teaching. I haven't encountered any problems

with conducting ICT-integrated lessons except for the power cut. Using ICT is like a double-edged sword. Teachers need to prepare well in advance, even having an alternative plan in case of a power outage.

Finally, Hannah mentioned one key factor to explain why she and her colleagues were greatly inspired to work with ICT. She shared that her school was chosen to be a member of the National Foreign Language Project 2020. Consequently, her school was equipped with modern technology, such as a teacher robot, an active board, and a 3D object projector. All English teachers were sent to training courses at a national level, making them proficient in using these devices.

4.4 User-friendliness of ICT

The final group of motives that stimulates teachers to use ICT is associated with the user-friendliness of ICT, which replicates the findings in earlier studies conducted by Pima (2019) and Uluyol and Şahin (2016). In this study, Nora's statements elaborate on this.

Currently, I still face some difficulties in integrating ICT. I don't fully understand how it works, especially with several new features recently integrated into E-learning. I am confused about how to operate these features, so in practice, I am progressing slowly and dealing with emerging problems in a clumsy way.

Therefore, it is apparent that the friendliness of relevant technologies plays a significant role in teachers' decisions regarding whether the technologies can be implemented or not. Additionally, most of the participants also emphasized the importance of having practical features and eye-catching interfaces in facilitating teachers' adoption. In some cases where teachers find a certain technology unfamiliar or challenging to handle, the availability of technical support services was considered an advantage. This echoes the research results associated with assistance from ICT specialists (Chigona et al., 2014; Liaw et al., 2007; Mirzajani et al., 2014).

5. Conclusion

This study investigated the motivations that drive teachers to integrate ICT in their EFL teaching at primary schools in an underprivileged area in Vietnam. Seven EFL primary school teachers participated in one-on-one interviews on a voluntary basis. The findings revealed four distinct groups of motives, including *instructor-related motives*, *learner-related motives*, *accessibility-related motives*, and *the user-friendliness of ICT*.

This work has highlighted several administrative implications. Firstly, with the aim of supporting teachers in solving technical problems during lesson preparation and teaching, timely help from IT experts is necessary. It could be helpful if monthly or quarterly training sessions at the school level were held. These sessions should not only aim to keep teachers updated with new features or software but also to reinforce their knowledge, promote further practice, and facilitate discussions concerning their currently used technologies. The second implication is linked to the role of autonomy. Teachers' self-improvement in ICT application can be promoted in several ways, such as offering financial support so that teachers can search for and register for courses they find most interesting or appropriate for their teaching practice. Additionally, awarding prizes for the most tech-savvy teacher of the year, for instance, can further encourage their development as well. Finally, the data has revealed the negative impact caused by malfunctioning ICT equipment that teachers were still suffering from. Therefore, additional implications regarding constant investment in modern ICT equipment and the regular maintenance of a good internet connection quality are proposed for principals' consideration. As for teachers, proactive participation in online training sessions is necessary as it helps enrich their knowledge of ICT and improve their ICT skills. Consequently, their confidence in utilizing ICT could be increased. Furthermore, it is essential for teachers to be more self-aware of the significant role of ICT in language teaching and make efforts to integrate it properly to maximize the productivity of teaching and learning activities.

Finally, the findings in this study are subject to at least two limitations. The major limitation lies in the fact that the coding procedure was conducted by the researcher only. It should have been done by two coders. Secondly, this research is limited by the geographic distribution of participants as well. All interviewees live and work in Daklak province, a developing mountainous province in Vietnam. Therefore, their views might not be representative enough. Future studies on the same topic can be carefully considered to address these weaknesses.

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