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Research Article

Blened Learning Model-Based Local Education for Vietnamese Primary School Students

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Abstract

This research aimed to examine how the teaching local education subject under Blended-Learning model approach in Vietnamese primary schools in the Mekong Delta in Vietnam. The data were obtained from the questionnaires completed by 100 primary school leaders and 500 teachers and 180 students from 100 primary schools. The research results showed that the Blended Learning approach was successfully applied in teaching local education subject to primary students in Vietnamese primary schools in the Mekong Delta and the school leaders, teachers and students were generally satisfied with the quality of local education teaching in their schools. The study also provided several implications, for educational leaders and teachers in primary schools in the Mekong Delta in particular and other Vietnamese primary schools in general, to enhance the local education subject teaching.

Keywords: Blended Learning, local education, paradigm, primary school student,

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Introduction

Blended Learning' (BL) or the integration of face-to-face and online instruction (Graham & Graham, 2013), is a way of learning in the classroom combined with online learning (Friesen, 2012). "Blended learning is any time a student learns at least in part at a supervised brick-and-mortar location away from home and at least in part through online delivery with some element of student control over time, place, path, and/or pace" (Horn & Staker, 2011). BL is widely adopted across higher education with some scholars referring to it as the "new traditional model" (Ross & Gage, 2006) or the "new normal" in course delivery (Norberg, Dziuban & Moskal, 2011).

In the leadership in Blended Learning program, Blended Learning is a learning environment that incorporates digital tools, namely: (1) some learning online or via digital media; (2) some factors control learners by time, speed, manner, and or location; (3) experiential learning that connects different modes (Acree et al., 2017), or integrating classroom teaching with online experiences (Garrison & Kanuka, 2004). Blended learning is intermixing of any instructional forms to achieve an educatinal goal (Driscoll, 2002)) and it combines diffren delivery media to promote meaningful and motivating learning (Sands, 2002).

Blended learning environments include not only the physical presence of teachers and students but also the students' ownership and control of the time, place, setting, path, and pace at which their learning takes place (Banditvilai, 2016). Blended learning concerns mindset and pedagogy more than it does technology (Scientific et al., 2017).

Blended Learning shows its superiority compared to other forms of learning. This is presented in published studies by (Thomson, 2002), Texas Instruments and Corning Glass Works (Tran, Phan, Doan, Tran & Tran, 2020), Results-Oriented Learning (Bonk & Graham, 2012). Graham, Cagiltay, Lim, Craner and Duffy (2001) had denoted six reasons to choose to design or use the Blended Learning system such as pedagogical diversity, access to understanding, social interaction, opportunities, cost-effectiveness, and easy modification. Research by (Graham & Graham, 2013) showed that Blended-Learning was mostly chosen for three main reasons: improving pedagogy, increasing accessibility and flexibility, and increasing cost efficiency. With Blended Learning, lesson presentations are more vivid mediated by using visual effects, sound, graphics, virtual experiments, simulations, and so on. Also, students significantly improved social skills due to the high interaction among class members. This is a factor stimulating excitement, improving learning motivation, and increasing students' ability to cooperate and work with others.

Under the global development and integration, education has changed to follow the vision orientation of stimulating and maximizing the potentials of learners, training a dynamic and creative generation with core competences (of adaptability, self-improvement, cooperation, and social work), corresponding to rapidly social changes. At the primary education, the content is integrated with experiential activities and students learn how to apply knowledge to solve practical problems in the local area as such to develop their key qualities and core competencies (Ministry of Education and Training - MOET, 2019).

From the 2020-2021 school year on, the content of local primary education in the new general education program of Vietnam is applied (MOET, 2019). This content includes some historical knowledge on the foundation and development of hometown traditions, festivals, arts, historical sites, cultural celebrities, local customs and practices, population geography, natural landscape, natural environment, traditional trades and local traditional craft villages, some socio-economic information, morals, lifestyle, life skills; building up civilized lifestyle, respecting disciplinary law; protecting the local natural environment. The knowledge of these areas is in the local education subject to help local students understand more about the places they are living.

The content of regional local education subject in each provincince in Vietnam is integrated with the experiencial activities to enhance students understand more about places to live, develop their love for homeland, have a good sense of learning, and apply what they have learned to help solve the problems in their own hometown. However, challeges have occurred when it came to the capacity to compile the relevant curriculum for the local education subject contents and primary school teachers' skills and confidence running this content in practice. Therefore, the Blended Learning model is

assumed to provide sound solutions for feasible applications of local education subject in practice.

Literature Review

Blended Learning Approach

The development of science and technology has diversified classrooms in combining the online and face-to-face learning. Many educators used this Blended learning model because it benefits students, reduces program costs, improves time efficiency, and location convenience (Brown, 2003; Graham et al., 2001; Yang, Chuang, Li, & Tseng, 2013). According to (Owston, York, & Murtha, 2013), this model is suitable for many different audiences, ensuring the choice of educational environment, helping learners easily access knowledge quickly.

Blended learning involves the application of information technology and traditional methods (Garrison & Kanuka, 2004), but some other studies suggest that blended learning is a combination of online online and face-to-face (Garrison & Kanuka, 2004; Reay, 2001; Rooney, 2003; Yang et al., 2013), and blended learning is also mentioned in the global local education handbook (Bonk & Graham, 2012).

More than 90% of school and district administrators say that technology is important for achieving their school or district's mission or goals for preparing students (Hallinger, Tran, & Truong, 2021; Huang, 2016; Tan et al., 2021)). A 2014 report showed that only 9% of federal allocations for educator training programs go to principals and studies show the professional development opportunities for principals are often one-time workshops that use largely ineffective methods for instruction (Bonk & Graham, 2012; Reay, 2001). Researchers have defined blended learning as any instruction that combines classroom learning with online learning (Friesen, 2012; Graham & Graham, 2013), describing blended learning as models "that combine face-to- face instruction with computer mediated instruction" (p. 9). (Horn & Staker, 2011) articulate that "blended learning is any time a stu-dent learns at least in part at a supervised brick-and-mortar location away from home and at least in part through online delivery with some element of student control over time, place, path, and/or pace" (p. 3). Many studies have found that use of blended learning approaches has increased the presence of active learning strategies, expanded the number of peer-to-peer activities, and the use of learner-centered strategies (Calhoun & Joyce, 1998; Sharpe, Benfield, Roberts, & Francis, 2006).

One frequent question emerging in the discussion of blended learning is about what is being blended (Calhoun & Joyce, 1998; Graham & Graham, 2013; Sharpe et al., 2006). According to (Calhoun & Joyce, 1998; Graham & Graham, 2013; Sharpe et al., 2006), there are at least three types of combinations that are most often used as a reference. The first type is the combination of different delivery modes or modalities or media. The second is the combination instructional method. The last one is the combination online and face to face instruction. In the present research, the concept of blended learning being used is the first concept which is the combination of different delivery modes or modalities or media.

As blended learning views the learning activity as a continuous process that encourages the students to be independent students outside the classroom, it is considered as a better approach than the conventional face-to-face learning (Calhoun & Joyce, 1998; Graham & Graham, 2013; Sharpe et al., 2006). In addition, blended learning has improved many elements in pedagogy such as access, flexibility, student engagement and participation (Sharpe et al., 2006). Those facts make blended learning becomes a current trend in education, especially in higher education (Bonk & Graham, 2012).

Leading experts in education have identified multiple different models of Blended Learning (Acree et al., 2017; Dillman, 2011). One of the most comprehensive analyses of Blended Learning comes from the educators (Horn & Staker, 2011). They addressed four Blended Learning models. However, they pointed out that these models are the only framework for teachers to use when developing and discussing Blended Learning, and most teachers choose elements from models that are suitable for teaching (Horn & Staker, 2011). Thus, teachers can use a model depending on their specific conditions.

- Flex model: Via the Internet, students will receive learning materials, lesson contents, and instructions provided by teachers who assign students to work in individuals, groups or whole

class; they also support students online or in person as needed.
- Rotation model: It is a variation of the "learning station" those teachers have used for the past years. A timetable designed allows students both learn face-to-face with teachers and online. With this model, students receive specific supports from teachers corresponding to their current competency levels and needs.
- Self-blended model: This model allows students to take courses beyond the traditional curriculum in certain schools or regions. Students take traditional classes, but they can enroll in courses to supplement their regular learning programs. This model is especially useful in the following situations: (1) A certain course is not offered by the school, but students are allowed to take it as they wish for a particular field; (2) Students are motivated to take their own learning.
- Enriched-virtual model: This model includes the combination of distance learning and traditional learning. Students complete online courses based on their competencies and abilities to self-study. Teachers provide lessons online to their students.

Added to the four models above, (Horn & Staker, 2011) and other authors have recommended alternative models such as the Face-to-Face model in which teachers run virtually all the curriculum, and direct students to further learning online (Becker et al., 2017). In this model, most of the online learning is self-learning with teacher support when necessary or required. The "Inside- Out" and "Outside-In" model by (Calhoun & Joyce, 1998) also shows that learners are educated in the classroom and then outside the classroom (communities or social groups - online or in the field) to improve and identify their knowledge levels through experiencial activities in real life, finishing classroom learning and presenting their feedback and creative ideas.

Based on the explanations above regarding the literature reviewed and the teaching local knowledge of the province (including history, education, culture, geography) whose students are residing in (or local education subject) in Vietnam using Blended Learning approach, this study attempts to investigate how teaching-learning local education of each locality in Vietnam with ICT, especially in blended learning practice, is carried out in Vietnamese primary schools. It also aims to describe how the teacher integrates technologies in blended learning, to analyze how the students perceive blended learning using technologies, and to explain challenges overcome by the teachers and students during applying the blended learning model. The findings of this study are expected to provide empirical knowledge of teaching local education subject in the Blended Learning approach to the global knowledge and offer a number of implications for educational leaders of different levels and teachers themselves to take into consideration to improve the local education.

Methods

Participants

This study used the quantitative approach (Driscoll, 2002) as quantitative data can be "counted, calculated, examined, and rated for emotion, attitudes, hobby or cognition " (p. 137). The convenience sampling method used to ask 600 primary school leaders and teachers and 180 students (Grade 4 and 5) in four provinces in the Mekong Delta, Vietnam to answer the questionnaire survey. The questionnaires were distributed to 100 school leaders and 550 teachers from 100 primary schools, of which 600 questionnaires of school leaders and teachers and 180 questionnaires from 180 students returned, for a 92.1 percent return rate, which exceeds the 30 percent response rate most researchers require for analysis (Dillman, 2000; Dillman, 2011). The sample of this study drawn from 780 respondents who completed the survey instrument.

In this study, the Blended Learning model is used in the practice of local education for primary school students at different times and areas in Vietnam. Data were based on relevant document reviews and descriptively analyzed. Some Blended Learning models have been tested and explained about the purposes, features, and implementation of the local educational program in Vietnam. Based on the local education implemented in grade 1 in the

2020-2021 school year in Vietnam, the questionnaire was designed for primary school administrators and teachers.

The questionnaire was in the format of a 4-point Likert scale (Croasmun & Ostrom, 2011). with (1) Disagree/Unnecessary/Irresponsive/Uninfluential; (2) Slightly agree/necessary/responsive/influential; (3) Agree/Necessary/Responsive/Influential; (4) Strongly agree/Very necessary/responsive/influential.

The questionnaire was designed with two parts. The first part collected general information about age, gender, teaching experience, and educational level. The second part was those questions related to the understanding of local education and teaching based on the Blended Learning model. Specifically, teachers were asked about the necessity and responsiveness of knowledge about local education and teaching that knowledge based on the Blended Learning model; in addition, itevaluated learning results based on the Blended Learning model. Survey results were processed and analysed by using SPSS 20.0 software.

This study focused on the learning outcomes of students regarding local education contents taught through the Blended Learning model. However, the results of the study were implemented mainly based on numerical or quantitative data, and a scale for evaluating attitudes or feelings about the learning model applied. To complete a study effectively, the teacher's method has had a big impact on students' access to the combined learning model. (Driscoll, 2002) observes that "we continually observe and acknowledge the world around us. Furthermore, as teachers, we are constantly observing our students" (p. 127).

Analysis

All participants were provided informed consent after receiving an explanation of the purpose of the research. For 180 students, their parents were kept informed of the research purpose and got the consent. The ethics committee of Dong Thap University, Vietnam, approved the research. The Statistical Package for the Social Sciences (SPSS) version 20 used for data analysis. The coding procedure was performed as follows: 1 = Very dissatisfied, 2 = Somewhat dissatisfied, 3 = Neither satisfied nor dissatisfied, 4 = Somewhat satisfied, 5 = Very satisfied.

Results

Surveying 600 school leaders and teachers about the necessity and responsivenesss of teaching and learning the local educational contents under the Blended Learning model, the results are shown in the following figure.

The figure 1 shows that the majority of teachers evaluate the local education under the Blended Learning model as necessary and very necessary level. The average values are from 3.09 to 3.59 with a low standard deviation. The survey results have high reliability, which proves that primary school teachers appreciate applying the Blended Learning model to local education for primary school students. However, the figure 1 also shows that the average values of responsiveness to local education implementation under the Blended Learning model are still low between 2.18 and2.72. This means at the level of "Slightly responsive". Only the "Inside-Out" and "Outside-In" models have an average value of 2.72 at 3, that is a "responsive" level but not very high. In this situation, most teachers are not sure how to apply the Blended Learning model to local education although they appreciate its necessity. To find out more about this situation, we surveyed 600 school leaders and teachers in primary schools about organizing training and fostering to apply the Blended Learning model in primary schools and the results are shown in figure 2.

It can be seen from the figure 2 that the survey results on the level of training of teachers in local education under the Blended Learning model have not met the requirements. Up to 82.5% of teachers said that they had not received any training and 14.4% said that training was provided but it was inadequate. Thus, this result is accurately reflected in figure 1. Most of the teachers did not respond or hardly responded because some of them self-studied local education under the

Blended Learning model. Accordingly, to apply local education under the Blended Learning model, it is necessary to do well in training and fostering knowledge and skills about local education and local education methods under Blended Learning model.

The factors affecting local education for primary school students in Vietnam under the Blended Learning model are shown in Table 1.

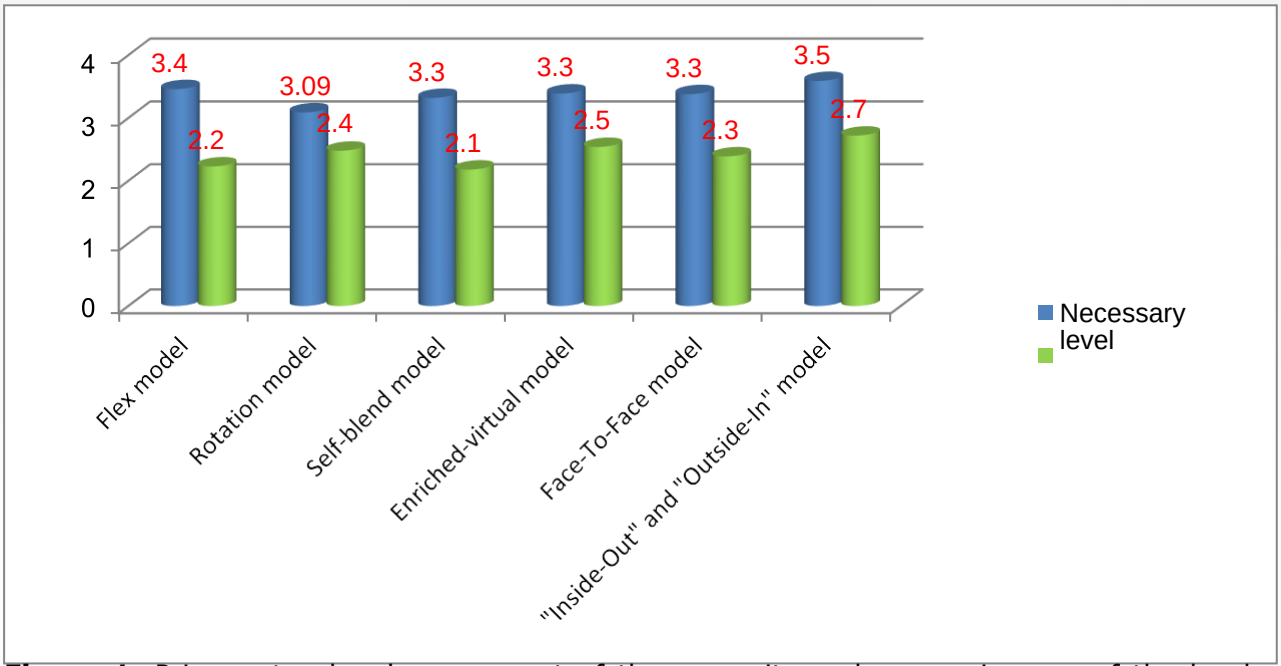

Figure 1. Primary teachers' assessment of the necessity and responsiveness of the local education contents for primary school students under the Blended Learning model.

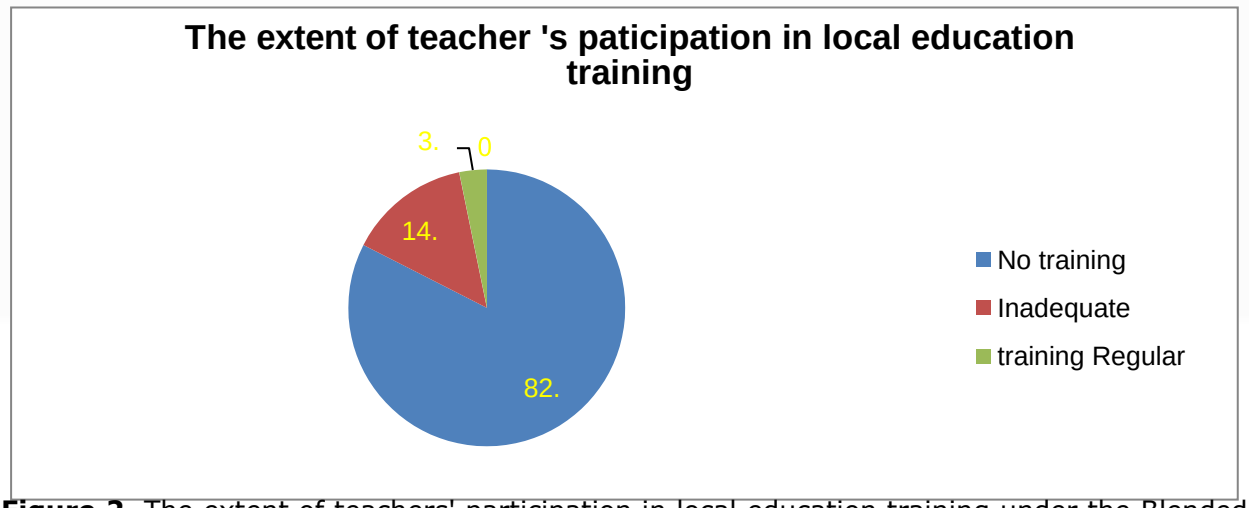

Figure 2. The extent of teachers' participation in local education training under the Blended Learning model.

Table 1
Factors affecting local education for primary school students based on Blended Learning model

No.	Affecting Factors	N	Average values	Standard deviation
1	Management capacity in primary schools	600	3.47	.500
2	Knowledge and competence of teachers	600	3.33	.553
3	Students' knowledge and abilities	600	3.18	.691
4	The school's facilities	600	3.34	.651
5	Conditions of the student's family	600	3.39	.487
6	Conditions of each locality	600	3.41	.493
7	Conditions of finance and time	600	3.38	.485

8	Conditions of information technology	600	3.45	.498

From Table 1, it can be seen that the average values of influencing factors are quite high, from 3.18 to 3.47 with standard deviation at low level from 0.485 to 0.691. This shows that the survey results are reliable, mainly at the level of "influential" and "very influential". Thus, the research shows that many factors are associated with the quality of students' education under the Blended Learning model. The fact that teachers are not trained in local education methods for primary school students under the Blended Learning model will greatly affect the quality of local education for primary school students.

On the other hand, students' attitudes after participating in local education learning under the Blended Learning model are illustrated in Table 2.

From Table 2, it can be seen that all 8 items have a score of 4 "strongly agree" from 67.78% to 93.33% and a score of 3 "agree" from 6.67% to 32.22% and no score of 2 "slightly agree" or 1 "disagree". Thus, it can be seen that the items on the attitudes of primary school students about learning in local education under the Blended Learning model are assessed by them as focused, positive, effective, and highly qualified, highly reliable. The results also confirm those reported by Huang (2016), Neumeier (2005), Sharpe et al. (2006), Chew (2009) regarding students' attitudes after learning under the Blended Learning model.

In item 5, table 2 shows that 100% students in grades 4 and 5 chose "strongly agree" and "agree" to face-to-face and online combined learning about their local education, helping them have more skills to supplement and perfect knowledge quickly. This is also true of previous studies such as (Huang, 2016) showing that 60% said blended learning was easy to do and rewarding. The study by (Norberg et al., 2011) found that 81.1% agreed that learning under the Blended Learning model was interesting, 93.2% thought that online learning helped improve hearing and vision, and 63.2% agreed that learning under Blended Learning model helped increase vocabulary.

Table 2
Primary school students' attitudes towards their local education under the Blended Learning model

No.	Attitude of primary school students	N	Strongly agree (%)	Agree (%)	Slightly agree (%)	Disagree (%)
1	I really enjoy learning local education both in class and online	180	126(70%)	54(30%)	0	0
2	I feel comfortable with a combination of face-to-face and online learning	180	135(75%)	45(25%)	0	0
3	I am very satisfied to study local education both face-to-face and online	180	122(67.78%)	58(32.22%)	0	0
4	I find the combination of face-to-face and online learning very useful	180	132(73.33%)	48(26.67%)	0	0
5	Blending face-to-face and online learning about local education helps students gain more skills to quickly supplement and perfect their knowledge.	180	145(80.56%)	35(19.44%)	0	0
6	I always fully participate in local education sessions in person and online	180	168(93.33%)	12(6.67%)	0	0
7	Blended learning helps me improve my knowledge more	180	166(92.22%)	14(7.78%)	0	0
8	Blended learning helps me reduce class hours	180	158(87.78%)	22(12.22%)	0	0

Discussion

This study shows the survey results on the application of the Blended Learning model to primary school students with the participation of 600 school leaders, teachers and 180 students. In primary school, the study also assessed the attitudes of primary school students after learning under the Blended Learning model, which gave very positive results in Table 2. This confirms similar results found in many previous studies with different subjects and locations (Drysdale,

Graham, Spring & Halverson, 2013; Güzer & Caner, 2014), which all showed most students agreed that learning under the Blended Learning model was preferrable and highly effective. It improved learning efficiency for students in both schools and higher education (Hallinger et al., 2021; Jia, Chen, Ding, & Ruan, 2012; Yang et al., 2013), helped them interact more (Chapelle, 2009; Smyth, Houghton, Cooney, & Casey, 2012); enhanced cooperation in the classroom (Senior, 2010); and created interest in learning (Fryer, Bovee, & Nakao, 2014).

The research results can provide a number of implications as follows:

(1) Planning local education in Primary School under Blended Learning model. One of the factors that need to be paid special attention to is the quality and capacity of the teaching staff implementing the local education under the Blended Learning model because teachers are direct agents for students to create educational outcomes. Therefore, teachers need to have a full understanding of local education and proficiently apply the model to local education for students. They should be able to plan local education subject to students' psychological and biological characteristics, local characteristics, and actual school conditions. Teachers' local education plan under the Blended Learning model needs to closely coordinate with local authorities, students' parents, as well as fully prepare other support conditions such as facilities, models, methods, forms, tests and evaluation criteria to ensure the success of their teaching.

(2) Organizing the implementation of local education in primary schools under the Blended Learning model.

Local education for primary school students under the Blended Learning model needs to follow the educational program and be organized based on the conditions of students in different regions. The process of organizing local education for primary school students under the Blended Learning model needs to take into consideration students' creativity, respect their opinions and interests to learn about the issues that students want to learn to make them feel happy, excited to optimize educational outcomes.

(3) Organize training for super-intendents, teachers, students, and parents to well understand and implement local education in primary schools under the Blended Learning model.

There are several limitations to this study. The main limitation derives from the sampling process used. The study was conducted in 3 provinces in the Mekong Delta in Vietnam. Participant selection on purpose greatly decreases this concern but does not fully resolve this shortcoming. The second limitation relates to the students in Grade 4 and 5 which can be sensitive for the research purposes. Thirdly, the data were quantitative which could not provide deep understandings of detailed things related to teaching local education under the Blended- Learning model from school leaders, teachers and students. It is expected that future studies will take those limitations into account.

Conclusion

The Blended Learning model in education is not just an option for classes and grades. The combination of teaching, face-to-face and online education is an opportunity for learning and education is absolutely necessary and suitable for the integration and development phase of science and technology in the 4.0 technology era. It is because Blended Learning model allows personalization, flexibility and more opportunities for students' choices to acquire knowledge and skills (Graham & Graham, 2013; Tran et al., 2020). Blended Learning model will meet the diverse needs of each student. But it will be the challenge for teachers to make an educational effort to help students from excellent, average, or weak levels, and to support all the different learning styles of students, add more educational experience and teaching online to face-to-face education. However, in order to apply the Blended Learning model to local education for primary school students, it is necessary to identify influencing factors such as a safe learning environment, age-appropriate or teaching methods, learning methods, learning resources (Drysdale et al., 2013), the role of teachers (Senior, 2010) and primary schools are very important, from which we can reasonably

choose the suitable models for the practical conditions of the locality, the student's family, the school's conditions, as well as the characteristics of each student, each different region to make education highly effective.

Recommendations

A number of recommendations can be drawn from this research results. First, the study results have helped to provide essential recommendations and foundations in developing solutions to improve the quality of local education under the Blended-Learning model provided by the primary schools in the Mekong Delta in Southern Vietnam. Furthermore, in the broader contexts of Vietnamese primary schools, this research's results will provide critical considerations and implications for different levels of leaders to find measures to enhance the local education teaching for improving students' learning, achievements on all needed knowledge of the locality. Future research should focus more on a broader sample of participants for a better generalisation and perspectives of participants from a more detailed interview.

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