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Blended learning: A study on Tamil primary schools

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A R T I C L E   I N F O

A B S T R A C T

This research was conducted to study the interest of blended learning among the students of Tamil primary schools and to identify the performance on the verse and figurative language (*ceiyulum moziyaniyum*). Primary schools including Tamil primary schools of Malaysia have implemented blended learning in their teaching and learning process. Both traditional and online learning are blended. Due to the implementation of blended learning in schools, the attitude of students changed and it became a powerful and effective tool for the students to learn. Many types of research on blended learning among primary school students and teachers have been carried out. According to these studies' findings, blended learning in primary schools both in traditional and online learning is essential. The impacts, effects, and environment are focused. Compared with these previous studies, the present study discusses and provides information about the interest and performance of blended learning in primary schools. Moreover, Tamil primary school students are focused on in this study. Further, the findings of this study show that students' participation in blended learning and their performance are high even during pandemic days. In this study, 4 different Tamil primary schools in Kedah State, Malaysia involved in blended learning were selected. Based on the objectives, the data were analyzed. The findings show that students' participation in blended learning and their performance are high even during pandemic days.

1. Introduction

Education plays a vital role in society. Teaching and learning is a process of it. Of this, the learning includes different skills, acquisition of subject knowledge, societal values, and societal beliefs. Various learning methods are used widely in a classroom to educate the students like training, discussion, narration, test, quiz, dictation, etc. And teaching mostly goes with classroom lectures because it takes place in a classroom situation. Classroom teaching and learning is a traditional method. Due to the pandemic situation prevailing throughout the globe, the teaching and learning process is being shifted from traditional to online teaching. This situation prevails even in Malaysia.

Malaysia Tamil schools implemented blended learning in their education system (Letchmanan and Saad, 2021). This article aims to study the interest of blended learning among the students of Tamil primary schools and to identify the performance on the verse and figurative language (*ceiyulum moziyaniyum*) through blended learning.

Schools all around the world are increasingly using blended approaches that combine online and face-to-face teaching. Blended learning is a combination of traditional classroom teaching and online teaching. Though this concept was introduced earlier, the application was from the beginning of the 21st century (Shanmugam and Balakrishnan, 2019; Ismail and Khalib, 2020). Many educational institutions came forward to introduce blended learning in the schools, during the pandemic, Covid19. There are various definitions by different scholars for blended learning. Blended learning is said to it 'a blend in education' (Dziuban et al., 2018). Blended learning is 'one of the contemporary trends of education' (Hubackova and Semradova, 2016). This method came to exist after the introduction of multimedia in education where multimedia is a

collection of various tools including, texts, images, audios, videos, and designs. In blended learning, one can find the blend of technology with face-to-face and online communication. Online learning can be called distance learning. In face-to-face learning, blended learning materials like lecture content, lecture, conference, handphone apps, YouTube, blogs, videos, audios, and so on are used. Whereas in online teaching, e-learning, online lecture, and sessions, social media like Facebook, e-mail, blogs, Twitter, YouTube, Skype, live chat, etc. are used. Moreover, blended learning is used in the two methods of teaching such as synchronous and asynchronous. At present, online teaching and learning which takes place, use both synchronous and asynchronous methods of teaching and learning. Synchronous method of teaching is almost similar to face-to-face class takes place through online platforms like, google meet, zoom meet, WhatsApp, and so on. But, the asynchronous method of teaching takes place through social media without a face-to-face learning environment. Social media includes YouTube, v channels, Facebook, recorded audio or video content, and digital texts.

Education in primary schools is for children from 4 to 11 years old. But, it varies from country to country. Even, the name 'primary school' changes according to the countries' educational systems. In some countries, it is named elementary school and in others as grade school. In Malaysia, primary school education comes after preschool. Tamil education in Malaysia was started in the year 1816 by establishing the first Tamil primary school in Penang. At present, Tamil primary schools are government schools and government-aided schools which come under the Ministry of Education. Moreover, the Ministry of Education has transformed education through the Malaysia Education Blueprint 2013-2025 which plans various initiatives to empower education (Ponniah et al., 2019). In Tamil primary schools, students from Tamil language backgrounds study Tamil. Tamil is one of the major languages in the Dravidian language family and it has a rich literature background starting from 300 BC. Tholkappiyam is considered as the ancient grammar book in the Tamil language. In Tamil primary schools of Malaysia, emphasis is given to listening, speaking, reading, and writing skills to an extent, arithmetic skills, and other skills-related subjects are taught. Moreover, the Tamil literary concepts such as proverbs, short stories, rhymes, poetic forms, verse, and figurative language (*ceiyulum moziyaniyum*), and many more are taught in Tamil primary schools (Ponniah et al., 2019).

Tamil primary schools have applied blended learning in their education process. It blended both traditional and online in teaching and learning. Implementing blended learning in schools changes the attitude of students and becomes a powerful and effective tool for the students to learn. Many changes occurred after applying blended learning in Tamil primary schools (Shanmugam and Balakrishnan, 2020). Some of them are, the role of the teachers

became essential, the deliverance of subject knowledge to the students improved, the physical environment in which the learning takes place is shifted, and the flexibility in time and place of learning came to exist. Moreover, the benefits after applying it in primary schools are enumerable. They are, ease in the interaction between teachers and students, teachers to keep all the teaching contents or instruction's at their fingertips, students learn of their own interest choosing own time, place and environment, teaching can be done by online, students never feel shy to raise questions, teachers use any type of technology while teaching, opportunities are provided for group and individual interactions, huge access to online resources, easy to understand, and use the digital content available and finally, the learners' assessment tools are easy to use.

The results of the research work are based on the objectives. This study has two objectives such as; to study the interest of blended learning among the students of Tamil primary schools and to identify the performance on the verse and figurative language (*ceiyulum moziyaniyum*) through blended learning.

Tamil primary schools are located in all the states of East Malaysia. The present study is limited to the Kedah state of Malaysia. Four schools of Kedah state were selected due to the time constraint. Of these, two schools with online classes with synchronous teaching and the remaining two schools with online asynchronous teaching classes. In online synchronous classes, various learning apps are used in schools. Moreover, the data from school classes are limited to 10 weeks of study.

2. Methodology

A descriptive research method is used for this study. Observational method, case-study method, and survey method are the three types of descriptive method. Of these, the survey method is used for this study. In this method, a questionnaire was used as a research tool to collect data. The questionnaire contains a set of questions that were used to collect information from the respondents. The elements in the questionnaire were determined by the comments and criticism from the field experts of education. The interest in blended learning was identified using the attendance of the students. Data regarding the students' performance and assessment were analyzed to fulfill the second objective. Online Collaborative Learning Theory (OCLT) proposed by Harasim (2017) is selected for the study. Online teaching and learning have their own characteristic features like displaying digital texts, videos, mass learning, users' own time, and so on. Online classes are termed virtual classes. This theory explains the indicators of learning in order to assess the quality of learning and its effectiveness (Harasim, 2017). Active participation, satisfaction, experience, and role of instructors are the main aspects of OCLT. It has three phases such as idea-generating, idea organizing, and intellectual convergence. Of these, intellectual convergence is used to assess the

performance of the students in this study. Intellectual convergence is any assessment based on individual thinking and logical reasoning. Moreover, active participation is identified using the students' attendance in their schools in this study. Hence, data were collected based on the attendance and performance of the students in the selected Tamil primary schools.

3. Data collection

Data were collected from four different schools. As blended learning is the main element of this study, all the four schools involved in online classes were chosen. Of these, two schools are with the synchronous mode of teaching and the other two schools are with the asynchronous mode of teaching. The framed questionnaire was used to collect data from the classrooms. Moreover, the data were collected from the 10 weeks of regular teaching. Allwright et al. (1991) have said that the classroom condition as, what and how learners learn, what teachers actually do, what kind of events take place should be researched. Tamil primary school teachers were selected for this study to collect data. The content validity of the research tool was determined by comments and criticism from experts in the field.

4. Findings and discussions

The data collected were analyzed and the percentage was calculated using Microsoft Excel software in this study. For this analysis, data collected were from 4 different schools with synchronized and asynchronized teaching through blended learning. The analysis is based on the students' interest in attending the class and their performance on the verse and figurative language (*ceiyulum moziyaniyum*) through blended learning. Moreover, the data were analyzed separately which

were collected from the schools with two modes of teaching and learning. The blended learning schools are referred to as school1, school2, school3, and school4 respectively in Tables 1 and 2. The percentage (%) and mean value are calculated. Discussions are also provided.

4.1. Attendance

Attendance is the number of students attending class. It is a practice and compulsory in school education in many countries including Malaysia. School attendance is the foundation of a student's ability to receive education and the benefits that such education provides (Dalton and Beacon, 2018).

Data for daily attendance were collected from the staff of the selected Tamil primary schools for 10 weeks. In the schools with the synchronous mode of teaching, there are 22 and 28 students respectively. Table 1 shows the details. The analysis of this data shows that the average percentage of attendance in school1 is 82.8%, whereas in school2 is 85.8%. The average mean value for attendance in 10 weeks is 84.3% in both schools. This shows the students' interest in learning through the online synchronous classes.

Further, data were collected from schools with the asynchronous mode of teaching, for a period of 10 weeks. In the 2 schools, there are 13 and 20 students respectively. The data were analyzed and the Table 2 shows the details about the attendance of asynchronous mode of teaching from two different schools referred to as school3 and school4. The average percentage of attendance in school3 and school4 is 46.1% and 76% respectively. The average mean value for the attendance for 10 weeks is in both the schools is 61%. This shows the students' interest in learning in the online asynchronous classes.

Table1: Attendance in school1 and school2

Sl. No	School1	Percentage %	School2	Percentage%	Mean value of School 1 and 2 in percentage %
1	18/22	82	24/28	86	84
2	20/22	91	24/28	86	88.5
3	19/22	86	23/28	82	84
4	18/22	82	24/28	86	84
5	20/22	91	22/28	79	85
6	15/22	68	24/28	86	77
7	20/22	91	24/28	86	88.5
8	16/22	73	25/28	89	81
9	18/22	82	25/28	89	85.5
10	18/22	82	25/28	89	85.5
Average mean value		82.8		85.8	84.3

Table 2: Attendance in school3 and school4

Sl. No	School3	Percentage %	School4	Percentage%	Mean value of School 3 and 4 in percentage %
1	5/13	38.4	15/20	75	56.7
2	8/13	61.5	14/20	70	65.7
3	5/13	38.4	14/20	70	54.2
4	6/13	46.1	15/20	75	60.5
5	6/13	46.1	16/20	80	63
6	5/13	38.4	16/20	80	59.2
7	6/13	46.1	15/20	75	60.5
8	8/13	61.5	15/20	75	68.2
9	6/13	46.1	16/20	80	63
10	5/13	38.4	16/20	80	59.2
Average mean value		46.1%		76%	61%

When the attendances from the online classes of both synchronous and asynchronous classes from the four schools are compared, online synchronous classes have an advantage over the other asynchronous classes. It has an average percentage of 82.8% and 85.8% in synchronous classes and 46.1% and 76% in online asynchronous classes. Based on the 10-week classes, the average mean value of the synchronous class is 84.3% and the asynchronous class is 61.0%. This shows that students have more interest in learning through the online synchronous classes of blended learning. Fig. 1 shows a clear picture of the attendance in synchronous and asynchronous classes of blended learning.
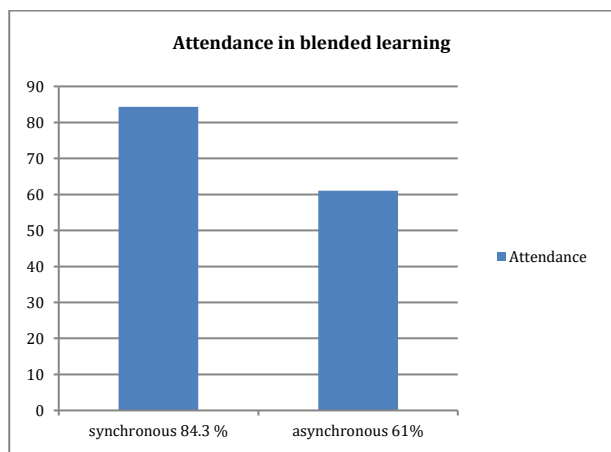

Fig. 1: Attendance in blended learning

However, the attendance in blended learning classes shows the interest of students in attending the classes.

4.2. Performance on the verse and figurative of language

One of the Tamil literary concepts of verse and figurative language (*ceiyulum moziyaniyum*) is taught in the Tamil primary schools through blended learning. Both verse (*ceiyul*) and figurative language (*moziyani*) are poetic forms of Tamil literature. The moral poetic forms in verses are provided with descriptions. This is taught in both synchronous and asynchronous classes of the selected four schools through blended learning.

The mobile applications (APPS) are used to conduct the assessments on the verse and figurative language (*ceiyulum moziyaniyum*) in the online class with the synchronous mode of teaching. They are conducted using various mobile applications (APPS) such as Kahoot, Quizizz, Quizlet, and Wordwall. The performance of the students is analyzed using the data collected from two different schools. The assessments are conducted using the above-mentioned APPS. Table 3 provides the details.

The analysis of this data shows that the students have performed well in the verse and figurative language (*ceiyulum moziyaniyum*) assessment given through APPS in the synchronous mode of teaching. The total mark varies according to the mode of assessment. The total mark through Kahoot is 18; Quizizz is 15, 16, 18, and 20 respectively; Wordwall is 19 and 20, and Quizlet is 20. These modes of assessments are used in 10 weeks of the synchronous classes. In certain weeks, many have performed centum in both the schools. The average mean value for the performance in various modes of learning is 97.4% and 96.2% respectively in both the schools conducted through blended learning. The average mean value of both the schools in percentage is 96.8%.

Further, in the asynchronous mode of teaching, verse and figurative language (*ceiyulum moziyaniyum*) are taught in the Tamil primary schools. Here the performance is based on the offline exercises given through asynchronous mode. Fill in the blanks, frame sentences, writing verses, writing using the instructions provided, and review is the exercises provided. After writing the answers, students are instructed to take a snap and upload through any social media like telegram or WhatsApp and send them to their respective teachers. The performance is analyzed using the data collected from the asynchronous class.

The analysis of this data shows the performance of the students in verse and figurative language (*ceiyulum moziyaniyum*) assessment. The percentage is also calculated and exposed. The average mean value for the performance in various varieties of assessment in percentage is 76.3%. Table 4 shows the performance of assessment offline.

Table 3: Performance of assessment through APPS

Sl. No	Mode of assessment	School1 performance	Percentage%	School2 performance	Percentage%	Mean of percentage %
1	Kahoot	18/18	100	22/24	91	95.5
2	Quizizz	19/20	95	23/24	95.8	95.2
3	Wordwall	17/19	89.4	23/23	100	94.7
4	Kahoot	18/18	100	24/24	100	100
5	Quizlet	20/20	100	21/22	95.4	97.7
6	Quizizz	15/15	100	22/22	100	100
7	Wordwall	18/20	90	24/24	100	95
8	Quizizz	16/16	100	24/25	96	98
9	Kahoot	18/18	100	22/25	88	94
10	Quizizz	18/18	100	24/25	96	98
	Average mean value		97.44%		96.2%	96.8%

The performances in the blended learning classes conducted in the synchronous and asynchronous methods are compared and their differences are identified. The average mean value of performance

in verse and figurative language (*ceiyulum moziyaniyum*) assessment in online classes with the synchronous mode is 96.8% and with the asynchronous mode is 76.3%. The synchronous

mode in blended learning is better when compared with others which has an average percentage of 96.8% which is high. Fig. 2 provides the information.

Table 4: Performance of assessment through offline

| Sl. No	Variety of Assessment	Literary forms	Performance	Percentage %
1	Fill in the blanks	*irattai kilavi*	15/22	68.1
2	Frame sentences	*uvamaithodar*	18/22	81.8
3	Writing poetry	*Ceyyul*	18/22	81.8
4	Writing based on situation	*Thirukural*	15/22	68.1
5	Fill in the blanks	*Mozhiyani*	18/22	81.8
6	Review		14/22	63.6
7	Frame sentences	*Inaimozhi*	20/22	90.9
8	Writing poetry	*Ceyyul*	15/22	68.1
9	Writing based on situation	*Marabuthodar*	18/22	81.8
10	Review		17/22	77.2
		Average mean value		76.3%
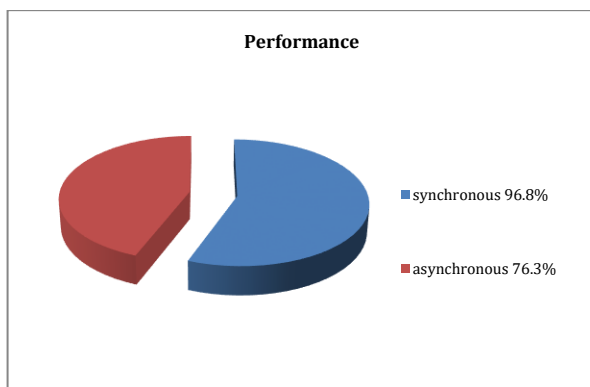
Fig. 2: Performance of blended learning

The performance of students while assessing verse and figurative language (*ceiyulum moziyaniyum*) through blended learning classes shows their intellectual convergence.

The interest of students in attending the blended learning classes and the performance of the students are provided with statistical information. According to Harasim (2017), active participation is an essential element in the OCL theory. In the selected schools, the attendance in online classes is high up to 84.3%, in which one can find active participation. Moreover, intellectual convergence is assessed with the performance of students in the class which is high as 96.8%.

5. Conclusion

In this article, the attendance of the students who attended the online classes of blended learning was presented. Moreover, the performance of the students based on the assessments on the verse and figurative language (*ceiyulum moziyaniyum*) through blended learning is presented. When the data of the blended learning for attendance is analyzed, it has been found out that the average mean value of the synchronous class is 84.3% and asynchronous class is 61.0%. Moreover, the performance of verse and figurative language (*ceiyulum moziyaniyum*) assessment through blended learning classes conducted in the synchronous and asynchronous methods of learning is identified. The average mean value in synchronous mode is 96.8% and with the

asynchronous mode is 76.3%. The findings of the study show that students actively participated in the blended learning classes. Moreover, they performed well in their assessments provided which show their intellectual convergence.

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Compliance with ethical standards

Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

References

Albiladi WS and Alshareef KK (2019). Blended learning in English teaching and learning: A review of the current literature. Journal of Language Teaching and Research, 10(2): 232-238. https://doi.org/10.17507/jltr.1002.03

Allwright R, Allwright D, and Bailey KM (1991). Focus on the language classroom: An introduction to classroom research for language teachers. Cambridge University Press, Cambridge, UK.

Dalton J and Beacon V (2018). School refusal. In: Driver DI and Thomas S (Eds.), Complex disorders in pediatric psychiatry: A clinician's guide: 11-21. Elsevier Inc., St. Louis, USA. https://doi.org/10.1016/B978-0-323-51147-6.00002-8

Dziuban C, Graham CR, Moskal PD, Norberg A, and Sicilia N (2018). Blended learning: The new normal and emerging technologies. International Journal of Educational Technology in Higher Education, 15: 3. https://doi.org/10.1186/s41239-017-0087-5

Harasim L (2017). Learning theory and online technologies. Routledge, London, UK. https://doi.org/10.4324/9781315716831

Hietanen L and Ruismäki H (2017). The use of a blended learning environment by primary school student teachers to study

music theory. The European Journal of Social and Behavioural Sciences, 19(2): 2393-2404. https://doi.org/10.15405/ejsbs.212

Hubackova S and Semradova I (2016). Evaluation of blended learning. Procedia-Social and Behavioral Sciences, 217: 551-557. https://doi.org/10.1016/j.sbspro.2016.02.044

Ismail FM and Khalib TNT (2020). The use of ICT in the learning of oral interaction [Penggunaan ICT dalam pembelajaran interaksi lisan]. Muallim Journal of Social Sciences and Humanities, 4(2): 137-149. https://doi.org/10.33306/mjssh/68

Kaur I (2016). Blended learning a convergence of online learning and face-to-face education for imparting better education in India. International Journal of Social Sciences, 2(1): 226-235. https://doi.org/10.20319/pijss.2016.s21.226235

Letchmanan C and Saad A (2021). Keberkesanan bengkel dalam meningkatkan kemahiran teknologi maklumat dan motivasi guru terhadap proses penilaian dalam talian. Muallim Journal of Social Sciences and Humanities, 5(2): 137-149. https://doi.org/10.33306/mjssh/127

Miskiah SY and Sudrajat A (2020). The effects of blended learning on elementary school students' creativity and activeness.

Universal Journal of Educational Research, 8(9): 3958-3964. https://doi.org/10.13189/ujer.2020.080920

Ponniah K, Kumar M, Moneyam S, and Sivanadhan I (2019). The teaching of Thirukkural based on HOTS among the students of Tamil primary schools in the state of Perak. International Journal of Advanced and Applied Sciences, 6(2): 94-101. https://doi.org/10.21833/ijaas.2019.02.014

Shanmugam K and Balakrishnan B (2019). Designing an ICT guiding framework for science teachers in rural Tamil schools in Perak [Pembinaan kerangka panduan ICT bagi mata pelajaran sains untuk guru-guru SJK (T) di luar bandar di negeri Perak]. Muallim Journal of Social Sciences and Humanities, 3(4): 441-458. https://doi.org/10.33306/mjssh/34

Shanmugam K and Balakrishnan B (2020). Microsoft power point as a presentation tool for teaching and facilitating science in rural Tamil schools in Perak [Perisian microsoft power point sebagai peranti persembahan semasa pdpc sains di SJK (T) luar bandar di negeri Perak]. Muallim Journal of Social Sciences and Humanities, 4(1): 49-65. https://doi.org/10.33306/mjssh/55