

# QR codes in ESL classroom learning

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**Abstract**—These days times have evolved, changed and we now have a new breed of learning technologists. Thus, this is just the beginning because technologies have begun to change everything namely the way that English is learned in the classroom, even bigger changes seem to be taking place outside it. However, the development of information and technology has brought plenty of changes to the educational field. Hence, the existence of smart phones is particularly playing a huge role in shaping learning methods towards ESL learners. In addition, traditional learning materials yield attractive, motivating and technologically enhanced learning materials. So, the QR (Quick Response) Codes are one of these innovations. The aim of this case study was to explore the Quick Response (QR) codes in ESL classroom learning. In this intervention, English as Second Language (ESL) learners was chosen are from UITM, Rembau, Negeri Sembilan, Malaysia. Survey questionnaire were used as data gathering method. The findings indicated that students showed positive respond and improvement in classroom learning environment after the intervention of QR codes was implemented and agreed to use QR codes as one of the teaching tools in enhancing the students' interests in learning. The QR problems encouraged the pupils to persevere with the problems, an effect which led to good learning outcomes.

**Keywords**— QR codes, ESL, innovations

## I. INTRODUCTION

English is a language spoken and written by billions of people around the world (Melor, 2014). English has become the global language and it plays a crucial part in order for one to fit into the real world like the worlds of culture and communication with others people from around the world. Therefore, English education is crucial in order to prepare individuals, especially students for the real world (Harjander, 2014). Moreover, English language has become the one and the most widely use language in today's world. Besides, it is also an act as the bridge of communication among people from all the countries in the world especially in international business dealing is conducted in English language. Consequently, English is taught in both primary and secondary school and even used to teach Science and Mathematics. Besides, the importance of English in tertiary education and job entry requirement also are growing and more palpable accordingly (Nich, 2005; Shanta, 2000; Ball and Chick, 2001). Additionally, most reference books from various field like science, engineering, business, management and a lot others are in English.

Hence, the Malaysia Education Blue Print was forced include this issue. In the Malaysia Blueprint 2013- 2025, it is stated that:

“Every child will be, at minimum, operationally proficient in Malay language as the national language and in English as the international language of communication. This means that upon leaving school, the students should be able to work in both a Bahasa Malaysia and English language environment.”(Malaysia Education Blueprint, 2013- 2025, P16). This shows how important the English language is to the students and to the nation, in specific. In addition, it shows that the Malaysian government is taking this matter seriously. It is strictly stated that every student in our country should have the proficiency not only in Bahasa Melayu but also in English as a second language because it is an international language of communication (Malaysia National Education Blueprint, 2013-2025).

Hence, mobile learning is one of the learning strategies can be use by English Second Language (ESL) learners in enhancing their English learning. Moreover, since we already entered the high development of information society and we also realize that smart learning can be known as the combination of technology and gadget as long as there is internet connection. Hence, some researchers mentioned that thru mobile learning can helps pupil's especially new learners in improving their teaching and learning style (O'Malley et al., 2005). In this study, implementation of Quick Response (QR) Codes can be placed in the context of mobile learning as the main technology which motivated ESL learners and gain their interest in classroom learning. Besides, using QR codes as one strategy in classroom learning enable the ESL learners use their smart phone and participate in class so thru this it will make the ESL learners be more active with high level of motivation and interest with the implementation of new technology (QR Codes) in learning.

Therefore, this paper aims is to explore the implementation of Quick Response (QR) Codes in ESL classroom learning.

## II. EASE OF USE

In the 21st century, chalk-and-talk teaching approaches are no longer relevant and applicable in the current generation. However, lectures have been exposed to many new methods and styles of teaching approaches and these are free for explore future and to adapt into their classroom learning. Thru this, it is the combination of the traditional ways and modern ways which is teaching and technology using QR codes in learning.

### A. English Second Language (ESL)

English is a language that had been used for decades and become lingua franca for all countries in the world (Morrison, 2002). Thus, it is an international language for wider communication with others. According to McKay (2009), the term ESL is commonly used in most immigrant countries,

whereby many of the immigrants do not use English as their native language. Because these immigrants reside by the native speaker of English, they are willingly or unwillingly to learn the language, in order to communicate with the societies. This is due to the fact that English was used as the main language spoken with the societies and the communities as well as official institutions in world these days.

The immigrants, their parents and student especially in this research paper are forced to learn English even though their native language is not English, in order to immerse and integrate themselves with the communities and surrounding areas. Thus, ESL is not applicable if the speaker considers English as their third or fourth language. Instead, they considered English as a second language.

The scenario is similar in Malaysia. In Malaysia, Bahasa Malaysia is the mother tongue or the native language of the country, and most Malaysians speak the language of their own, where they acquire the language from their parents. At the same time, English is regarded as the second language of the country. Thus, English is considered as a second language in Malaysia as students in Malaysia are urged to learn English besides having to learn Bahasa Malaysia in school.

#### B. Mobile Learning

Hence, in these recent years, important part of our everyday life is mobile devices and lately the improvement in mobile device leads to the appropriate terms for educational use same goes to mobile technologies which leads to the better style of learning known as mobile learning (Naismith & Corlett, 2006). Moreover, mobile technologies enable and enhance learning in different contexts for each, through content interaction and social (Crompton, 2013). In different context, it allows learners to learn anywhere, anytime and learning can be situated depending on the individual or learners itself (Traxler, 2009).

#### C. Classroom in Malaysia

Despite, in Malaysia, most classrooms consist of students from different background, level of proficiency, preference and capability (Lee, 2015). This is because most lecturers tend to play safe and only select to teach the middle or intermediate classes (Lee, 2015), hoping that weaker students will be able to catch up on their own and advance level learners will be able to slow down in their learning pace. By neglecting the needs of the minority group in the classroom, is either good in language proficiency, interest or preference in demotivating for these students. Sometimes, this will lead students to feel frustrated towards learning process especially in English subject.

Neglecting the needs of the minority groups of learners by letting them to be lacked interest in the context of language proficiency or preference is one of the reasons that could lead the learners to feel demotivate and sometimes lead to frustration towards learning. Thus, one of the aspired outcomes of the Malaysia National Educational Blueprint 2015-2025 is to achieve educational quality. In other words, the education ministry tries to focus on the outcome and integrate innovations and technologies into the classroom in enhancing students for better learning experience (MOE 2015). Based on previous researchers, lecturers are able to cater to a wide range of students by using different teaching methods and approaches based on students learning style. This will be effective in making their lesson to be more interesting, and at the same

time maximized each students learning potential (Foo & Lee 2012a, 2012b, 2012c, 2012 d; Lee & Melor 2014).

#### D. Quick Response (QR) Codes

Thus, QR codes technology recently is very popular and well known in product identification, ticketing services, marketing, advertising and others various applications for such but none in education (ICIS 2007). Besides, QR codes technology has many advantages namely high reliability, low cost and wise time consume. Moreover, with QR codes it allows the ESL learner to learn outside of the box means only in traditional ways and learning materials are no longer limited to the textbooks only (Shih et al., 2012). Hence, there are others and variety ways in implementing QR codes in educational context depends on the lecturers itself (Rikala & Kankaanranta, 2012). Furthermore, QR codes are unique and versatile because it helps and support learning in many ways. This is because, lecturers can include texts, videos, pictures and many more in learning materials could make the environment in the classroom while learning be more attractive (Rikala & Kankaanranta, 2012). Besides that, QR codes also can provide the real or authentic tasks that are real-world setting and can expand the learning experience. In other words, when QR codes embedded, be used and well spreading in the environment, students can obtain the information more easily (Osawa et al., 2007). In addition, thru QR codes also can enhance the paper-based materials so that the materials serves maintain original and serves different types of learners (Chen et al., 2010). Last but not least, implementation of QR codes allows the combination of collaborative learning and just-in-time (fast) display or preview of the materials (De Pietro & Frontera, 2012).

Unfortunately, only some of the studies had done regarding intervention of QR codes used in education (Law & So, 2010). Moreover, in Malaysia especially also not much research done about QR codes in education and this shows that Malaysian are not so exposed with the intervention of QR codes in educational. Despite, the goal plan to be achieved for this study is to make students feel enthusiastic and more motivated in learning when intervention of QR codes is implemented.

#### E. Theory

In this study, the theory used is by Venkatesh et. al (2003) known as "Unified Theory of Acceptance and Use of Technology (UTAUT)". It consists of four steps which are:

1) *Performance expectancy*: It is the degree to which the believes of an individual that using the new system might and will help themselves to attain and gains more confident in job performance.

2) *Effort expectancy*: The degrees ease of use with the new system to be deal with.

3) *Social influence*: The degree to which an individual perceives that it is important for others to believes the new system to be used.

4) *Facilitating conditions*: The degree of an individual believes that with this new existence of technology (QR codes) can support the use of the system and useful.

### III. METHODOLOGY

The main purpose for this study is to investigate the implementation of Quick Response (QR) codes in ESL classroom learning. Besides, to assess and evaluate the result, students from University Teknologi Mara (UITM) were selected. The data for this research were piloted in questionnaire and distributed thru Google Survey available online. Thus, this study uses quantitative research methodology in collecting and analyzing data.

#### A. Participants

This study is conducted at University Teknologi Mara (UITM) at Rembau, Negeri Sembilan, Malaysia. Total number of participants for this study is 40 diploma students and it consists of 24 female and 16 male students only.

#### B. Data collection

This intervention phase was conducted for two slots time classes with approximately about 3 hours as total and 1 and half hours for each class engaging the intervention of QR codes during learning session in classroom.

#### C. Procedure

Before students were exposed with QR codes, face to face interaction with students were held first without implementation of QR codes. Then only the intervention of QR codes was held. The students need to scan each QR codes that display on the screen projector in order for them to access in the materials that prepared by me for lesson on that day itself. So with this, students will faced two phase different learning style in classroom which are normal (traditional) style and the intervention of technology in education which is implementation of QR codes in classroom learning.

#### D. Questionnaire

The questionnaire were piloted and was administered to 40 students upon completion this study (during the end of the class session) in order to determine the degree of acceptance on QR codes intervention in education. Ten questions were created and only selected will be mention in this study and likert scale was applied to all questions (Yes/No).

#### E. Data Analysis

The data was analyzed manually using frequency counts because the researcher focus only to conduct a simple study and small case in order to investigate the implementation of QR codes in ESL classroom learning.

### IV. FINDINGS AND DISCUSSION

#### A. Ease of Use

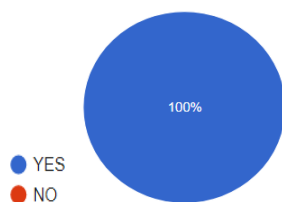


Fig. 1. Question: Did you find interesting when using QR codes in classroom learning?

Based on the Fig. 1. It shows that 100% of the students agreed that using QR codes in classroom learning is interesting. This shows that, the ease of use for implementation QR codes for ESL learners in classroom learning is undeniable.

#### B. Usefulness

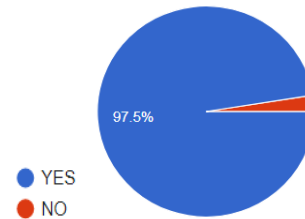


Fig. 2. Question: Is QR Codes seems beneficial tool in innovation to ESL learning?

Based on Fig. 2. above, it shows that majority of the students do agree that QR codes is useful and beneficial tool in innovation to ESL learning with 97.5%.

#### C. Enjoyment

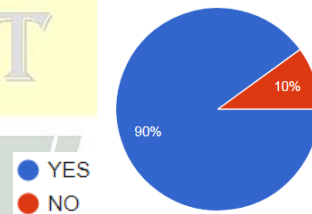


Fig. 3. Question: Will you suggests using QR codes to your lecturers in classroom learning in future?

Fig. 3. indicates that 90% of students vote for “YES” to shows that they do agree to suggest using QR codes towards their lecture in future for classroom learning.

#### D. Discussion

Last but not least, we can stated that majority of the students do agree that implementation of QR codes for ESL learners in classroom learning do plays a good role as learning strategies and act as beneficial tools that can be use in educational field as overall. With this, can’t be denied that this intervention of technology is useful to take place at any situation as long as the lecturer or we know how to make it good outcome for everyone in any fields.

### V. CONCLUSION

To conclude, it can be seen that this research has reach the aim and was successfully done without any errors especially in Malaysia. This is because, as mentioned before less research regarding intervention of QR codes in educational at Malaysia can be found. Besides, after the results on the findings and discussion above, we can said that QR codes in ESL classroom learning portray the positive effects on learning resources and materials towards the students. Moreover, it also encourages the social interaction between lecturers and students especially in class. In addition, this also helps the students to attain higher education and function in modern society and to enhance their



interests in learning also. To cut short, we can claim that implementation of QR codes in ESL classroom learning leads to the positive outputs because it gave the students the positive effects of visual, updatable information resources, direct leading and attractive. According to Law and So (2010) stated that most students are very curious and excited about these new approaches that can deviated their normal routine in classroom learning and also they considered the QR codes implementation in learning are interesting.

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