

LEARNING MOTIVATION FOR SLOW LEARNERS WITH TABLET TECHNOLOGY

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ABSTRACT

The use of tablet technology and apps has delineated a new ambience in a way of learning for children with learning disabilities. In an attempt to understand the gap, a study has been conducted with children with learning disabilities, specifically slow learners. They have challenges and difficulties to understand complex instructions and take longer time in catching up. Stimulation of multimodal features such as animation, audio, graphics and colors with the intuitive touch-screen interface on the tablet technology and apps have imparted a great deal of learning within the slow learner children. Practically, the uses of tablet technology with apps are complimentary learning tools to support and enhance learning process experience for the slow learners. Employing the apps in the learning activities with the slow learners embrace benefits to their learning. In an observation and focus group discussion within the teachers and slow learners, it was observed that the audio, graphics and ability to touch and swipe the screen have enhanced the motivation of the slow learners in their learning. When completing the learning activities, the slow learners demonstrated an engagement, enjoyment and excitement during task performance. Learning and performing learning activities with the tablet technology and apps have given the opportunity, benefits and new experience for the slow learners to interact at their own way which more relevance to them. The findings emerge after observations of a group of slow learners at school in a suburb area on the use of tablet technology to facilitate their learning. A six weeks of learning observation has been conducted with ten selected slow learners. It was strongly indicated the use of tablet technology as a complimentary educational tool has strongly enhanced the slow learners' motivation in learning and collaborating with the group members. They have increased the attention, created confidence and enjoyed throughout their learning session with the tablet and apps. This study recommends several guidelines to choose and develop apps interactivity on tablet technology which could benefit teachers, parents, developer and policy maker for reducing the digital gap among the slow learners.

Keywords: Tablet Technology, Motivation, Slow Learners

INTRODUCTION

Slow learners are a group of learning disabilities (LD) children who are being unable to learn which consists of mild cognitive disabilities, incapable to learn something in the amount of time assigned for the actual learning. Slow learners are having limited cognitive capacity or low in intelligent quotient (IQ), information processing weakness, poor in memory or short-term memory ability, lack of concentration with short attention span, having difficulty in abstract thinking which leads to inability to express ideas and deprived of attention abilities.

According to Chauhan (2011), Malik (2009), and Shaw (2010), a slow learner child is having an IQ in between 76 and 89 with slightly differ from the normal children and limited ability in solving problem. For example, learning to read it takes the slow learner approximately one year later that the majority of the children at the same level grade. They grasp the skills and concept even slower that is expected for children in general. The slow learner are mostly identified as low ability in reasoning on particular situation as well as to deal with abstract and symbols, such as in languages, numbers and concepts (Chauhan, 2011). Their limitation has also giving a great impact in dealing with complex problems and learning. This has leads slow learners to the situation of 'backward' performance in school who have very limited cognitive ability (Reddy, Ramar, & Kusuma, 1997).

Learning approach for students with disabilities specifically, the slow learners are special. Their behaviours and characteristic bring them to different ways in learning. However, the distinctions of learning disabilities do not limit them from upgrading their learning system. They should be inclusive to any new educational technology and recent technology and not to be left behind. Thus, they are supposed to be given exposure and experience of the new technology use and how it can assist in their learning. On several research highlighted as the need of technology is able to improve the learning method for students with learning disabilities. Thus, in the Malaysian Education Act 1996 has been reviewed with the enforcement of the Education Rules (Special Education) 1997 that created suitable options in the national education system for special needs students. The Education Rules (Special Education) 1997 ratified as suitable intervention may be embedded in the teaching and learning of the special needs students, as elaborated in Peraturan Peraturan Pendidikan Khas (1997, n.d.); (*Dasar Pendidikan Kebangsaan*, 2012),

“... teachers are allowed to modify method and approaches in teaching and learning, time provisions in daily scheduled activities, subjects matter, and the teaching aids that are more appropriate and suited the individual needs of these special needs students for more quality education.” (Peraturan Peraturan Pendidikan Khas 1997, n.d.)

Apparently, some researchers discovered that the technology may be able to assist in enhancing the learners' learning (Li, Pow, Wong, & Fung, 2009; Patchan & Puranik, 2016; Sung, Chang, & Liu, 2016; Urdan & Schoenfelder, 2006). However, there is little research focusing on the slow learners specifically and on learning disabilities generally. In addition, most of the research are unable to scrutinize the empirical side of the use of tablet technology in learning. It is essential for every teacher who is involved in technology integration in school to develop their teaching. As effective teaching is a complex process, the teachers' readiness in applying tablet technology is definitely important (Monroe-Ossi, H., Ohlson, T., Wehry, S. & Fountain, 2013).

In the research of (Falloon, 2013) had identified several factors of behaviour of students in engaging tablet technology to improve and upgrade their traditional learning methods. The studies provide broad learning values through tablet technology or mobile learning which are generally able to deliver 'anytime, anywhere' (Martin & Ertzberger, 2013). Whilst, in several research explored the engagement of tablet technology in learning and improving learning system by applying technology in general learning (Binu, 2015; Enriquez, 2010a; Andrea Alessandro Gasparini, Gasparini, & Culén, 2011; Hutchison, Beschoner, & Schmidt-Crawford, 2012; Ifenthaler & Schweinbenz, 2013;).

A senior fellow from the George Lucas Educational Foundation insisted as if the technology able to motivate student then use them. He allusion as the technology has a broader colors of platform such as the images, multimedia, games, videos and simulations able to be apply to teaching and learning (Chen, 2010). This is a remark on the traditional world of learning with black text on white pages and white chalks on the blackboards. The involvement of the technology has given impact on the development of application for users with learning disabilities. The objective of the research is to observe and discover the use of tablet technology as the alternative educational tool able to enhance the motivation for the slow learner in learning.

In this research, the researcher has visited to the school in order to have a clear view on the learning approach used for the slow learners. From the informal interviews and observations, the classroom for the slow learners currently uses traditional learning approach such as using white boards, flash cards and educational charts. There is a lack of technology embedment in the learning. Based on information received from the teachers, the motivation of the slow learner students was relatively poor, as they get easily bored with the learning methods applied. The researcher had tried to introduced the tablet technology and randomly selected application (apps) for the slow learners. Based on ambiguously observation, the students are able to retain their attention towards the application (apps) on the tablet and they feel excited to perform more tasks.

Therefore, the learning methods for the slow learners would require improvement to be able to enhance motivation and obtain attention in classroom learning. The challenge in this research is how the ability of the tablet technology and available applications (apps) can assist and enhance the motivation to the slow learners. Identifying the available apps that meet the needs of the slow learners is essential to perceive the impact of tablet technology for the slow learners' learning. Besides, the aim of the research of looking towards the motivation in learning for the slow learners with the embedment of tablet technology.

TABLET TECHNOLOGY FOR LEARNING DISABILITIES: SLOW LEARNERS

Tablet technology is the latest mobile swipe-touch base technology that interest by many groups of people. The device is very intuitive and provides a child-friendly interface. These features make able for student or children to learn vastly on the ability of touching and swiping on the icons provided on the screen (Monroe-Ossi, H., Ohlson, T., Wehry, S. & Fountain, 2013), (Goodwin, 2012). The idea of this study is to assist the learning disabilities especially the slow learners in motivating them to learn. As well as to help the slow learners in using the recent technology which currently utilized by many industries out there. The tablet technology is used as the tool for the slow learners to get familiarized and exposure in mobile technology. Some research has mentioned, deploying the mobile technology provide a positive exposure and new capacities in learning (Goodwin, 2012; Lovato & Waxman, 2016).

The motivation of the student with disabilities able to be enhanced with the use of tablet and apps. (Kim, Park, & Coleman, 2017) mentioned, "the portability and social acceptability" created an enjoyment and giving satisfaction to the learning disabilities students to use the tablet technology and apps. Another research done by (Hassan & Mahmud, 2015) has proven the use of tablet technology and apps could enhanced the motivation of the learning disabilities in their learning. The intuitive touch screen and the multimodal features of the tablet device has created the confidence for the slow learner's participant to perform their task on the apps with the tablet. The research has applied the motivation elements of (Keller, 1987) to indicate the motivation of the slow learners in using the tablet technology and apps in learning.

While in the research by (Schmidt, 2016), the initiative use of tablet in learning as a promising technology tools especially in one-to-one session. They have suggested the practical guides in having one-to-one use of tablet for general and even the special education learning. On the other hand, (Kim et al., 2017) seen on how the tablet technology could be highly effective able to improve the academic outcomes of the students with disabilities. The research found as utilizing the tablets in learning able to enhanced the social interaction within the group of learning disabilities.

In 2018, (Qahmash, 2018) has mentioned the potentials of applying the mobile technology for the various learning disabilities as such the mental retardation, autism, hearing impairment and speaking disabilities. The mobile technology had arisen several benefits which the most highlighted is the abundance of apps which able to be used to facilitate the learning for the learning disabilities students. This had been considered as the motivation for the learning disabilities to engaged in their learning. It had

also been the options for the teachers to uptake the advantage of the availability of the mobile apps to be integrated into the learning for the learning disabilities.

The research experience by (Chmiliar & Anton, 2015) mentioned the tablet technology able to assist and support the learning for the various learning disabilities student. The study on the eight learning disabilities students had insight on the apps the student relatively used and the feedback on the applying the tablet in their learning. The research concluded as majority of the learning disabilities students needed guidance and help in order to effectively use the tablets and apps in learning. Basic training on the introduction of the tablets and towards the specific used of the apps possibly needed to meet the specific need in their learning. As such, the apps which provided with simple functionality, quick and easy to figure out on how to use were highly satisfied the learning disabilities student in implying tablets and apps for learning.

Research have proven the tablet technology does increase motivation for student learning in a classroom. This is feasibly the tablet able to shift control to the students. According to (Shah, 2011), in anything that able to excite the learners, they will be confidence and happier to learn. On the other hand, tablets provide the immediate and instant feedback which assist on learners with attentional difficulties (Quick, 2014) . One of the slow learners' characteristic is low attention span and having tablet technology to support in learning able to introduce a new atmosphere of learning for slow learners.

OBJECTIVES

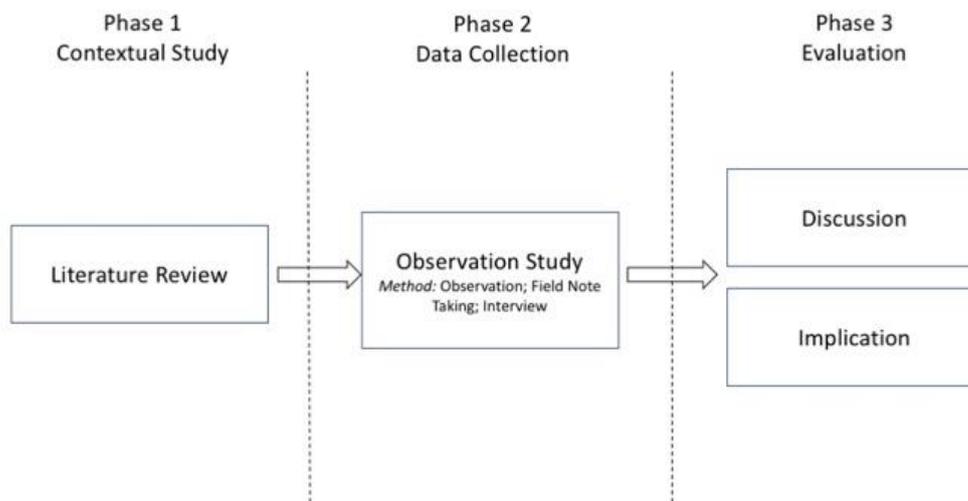
The research main aim is to discover the use of tablet technology as the complimentary educational tool able to enhance the motivation for the slow learner in learning. The intention is to observe the current learning use for slow learner in the classroom and to comprehend the suitability in applying the tablet technology for the slow learner new learning experience. This study is conducted as to evaluate the motivation of the slow learner student towards the use of tablet and apps as the complimentary educational tool in learning.

METHODOLOGY

Research Design

A study has been conducted uses a qualitative research design of six weeks of classroom observation and informal discussions with teachers to explore how tablet and apps are being use able to enhance the motivation of the slow learners in learning. The qualitative approach is the most suitable to extend this study as observation allowed a better understanding of how actually the slow learner learning in the classroom; the informal discussion with teachers provides the insight experience in handling the slow learners and sampling is limited as the participants are learning disabilities, they are selected by the teachers. The research design for the study as illustrated in Figure 1.2-1 is to define the phases of the study. There are three main phases has been undergone for the whole process of the research which are; contextual study, data collection and evaluation.

Figure 0-1 The Research Design Process



Phase 1: Contextual Study

The research initiate through the literature review where problems has been identified towards the slow learners and it's learning.

Phase 2: Data Collection

Qualitative method is chosen to study the learning ecology for the slow learners. Literally, the study has undergone the observation, discussion, field note taking and interview are used for data collection to be analyzed and discuss for future recommendation. The classroom observation was conducted with ten mixed of severe and mild slow learners, which selected by the teacher. Two of the slow learners' teachers were participate in the study base on their interest and feel comfortable having an observer during their teaching and eventually participated in the informal discussions. The duration of observations is according to the participants, whereby they were observed once to twice per week for six weeks term. Data was collected using the video

recording and taking notes. Interview session was conducted with the slow learners' teachers and informal small talk with the slow learners.

Phase 3: Evaluation

The justifications for the data obtained are to determine the suggestion for future use of application or apps in the slow learners learning. The recommendations were signified to advise the developer on how and what should and should not be develop on the apps for the slow learners to apply in their learning in the perspective view. The discussion indicated the results from the data collected and its implication able to be utilized for future study. The whole idea of the research is to understand the problem as not by solving the problems however is to recommend for the future improvement especially for the slow learners' learning.

Procedures

During the observation, a teacher conducted a traditional learning for 40 minutes prior to use of tablet and apps to conclude activities with the slow learners learning in the classroom. The same app was use throughout the observation period with selected of topic in accordance with the normal or traditional teaching topic. Two tasks needed to be performed by the slow learners, which are Task 1 and Task 2. The variation in time spent was due to the slow learners' ability in completing the activities with the tablet and apps. The informal discussion is conducted to obtain teachers experience in using tablet and apps with the slow learner and how the use able to enhance their motivation, in a casual manner.

Motivation Elements

The ARCS Motivational Model designed and initiated by Keller (1987) is applied in the study as to aim student's learning ambition. As (Keller, 1987, 2008) mentioned, there are four basic human characteristics that drive as the elements in the model in order to get people motivate with practical strategies along to achieve each of the components. The four components are Attention, Relevance, Confidence and Satisfaction as Table C-1. The teachers evaluate the measurements of motivation during the traditional classroom learning and with the use of tablet and apps. Evaluation for the slow learner student is based on the four ARCS Motivational elements for both tasks.

Table 0-1 The Motivation Elements

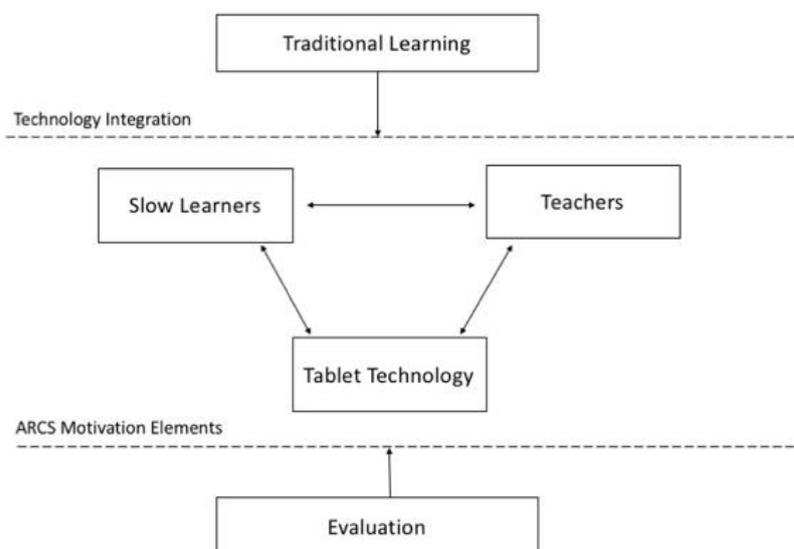
| Major Categories and Definitions | |
|----------------------------------|--|
| Attention | Capturing the interest of learners; stimulating the curiosity to learn |
| Relevance | Meeting the personal needs/goals of the learner to effect a positive attitude |
| Confidence | Helping the learners believe/feel that they will succeed and control their success |
| Satisfaction | Reinforcing accomplishment with rewards (internal and external) |

The teachers used the Reduced Instructional Materials Motivation Survey (RIMMS) form which provided to observe the motivation on slow learners. The RIMMS consist of 12 questions related to the motivation elements of attention, relevance, confidence and satisfaction. Each of the elements are directed to four questions on the RIMMS. The RIMMS has been validated through the research of (Loorbach, Peters, Karreman, & Steehouder, 2015).

THE CONCEPTUAL FRAMEWORK

Researchers have argued that the use of mobile technology must be included as a core skill in special needs education training (Dionne, 2013; Terrer-Perez, 2013). (Dionne, 2013), further argued that a framework for the use of mobile technology in special needs education must be developed to guide teachers.

Figure 0-1 The Conceptual Framework



In the study, a conceptual framework has been proposed to assess and investigate the workable of all the slow learners towards the traditional learning and the use of tablet and apps. The conceptual framework, Figure C-1, illustrates the integration of the tablet technology into the traditional teaching and the measurement of motivation taken place during the use of tablet and apps with the slow learners. This framework is to support and respond to the research objectives for the study. The aim or objectives of the framework developed is to allow the research to identify and evaluate the use of tablet technology able to motivate the slow learners in their own educational settings, meaning that; the traditional learning is identified and tablet technology is being added value towards the slow learners' learning. The idea is to see the motivation on the slow learner when their learning is integrated with technology and in this case, tablet technology.

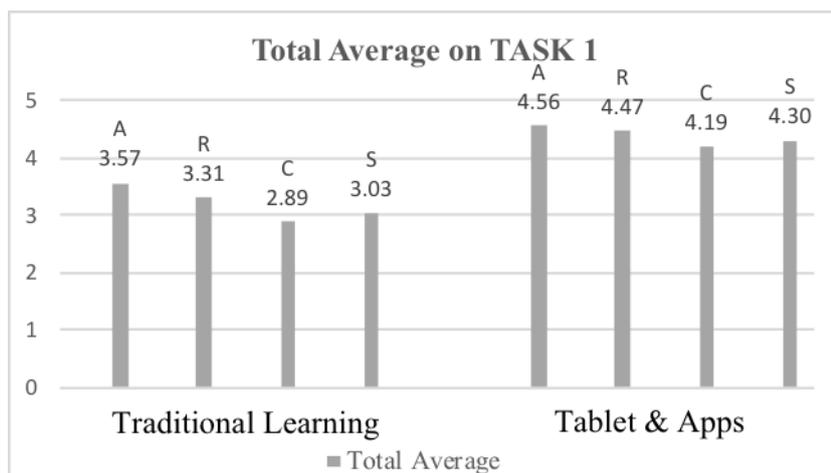
RESULTS

Both of the learning, traditional learning and with the use of tablet and apps were observed with RIMMS by the teachers on two tasks based on the two topics learned. Each and every topic were selected by the teacher's accordance to the learning syllabus. Task on every topic were given on traditional learning as well as doing the activities with the tablet and apps. The topics chosen by the teachers are; Fruits and Parts of Body. The similar topic applied for the activities with the tablet and apps with different interaction gesture. The Task 1 for the topic of Fruits, the slow learners used the interaction of *dragging and drop* while Task 2 applied the *touch* gesture.

The teachers observed and evaluated during all the task performed by each of the slow learners on their respond towards the learning and in performing the activities. The results from the observations by using RIMMS by the teachers were directed to the motivation elements and the slow learners' motivation on both traditional learning and with the use of tablet and apps. The average of each category is calculated and reported for each slow learner's motivation attainment during the traditional learning and the use of tablet and apps.

The Figure C-1 illustrated the bar chart of the total average scores for each of the motivation elements for all the slow learners for Task 1 on traditional learning and with the use of tablet and apps. From the chart shown the all of the motivation elements has a remarkable boost in the average scores from traditional learning towards the use of tablet and apps. This has literally perceived as the use of tablet and apps has created enhancement in the motivation for the slow learners in their learning.

Figure 0-2 Total Average Task 1

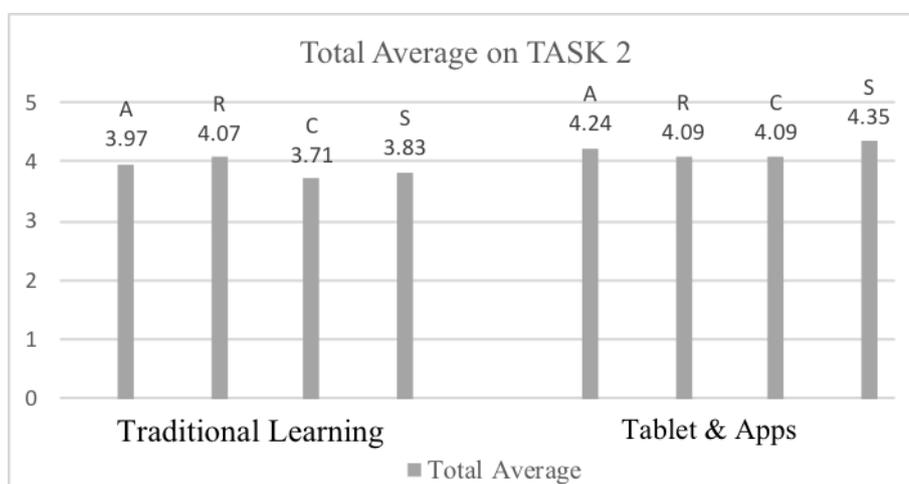


The average score for elements of attention(A) on traditional learning is 3.57 has increased to 4.56 when the tablet being introduced to all the slow learners in the observation. Similarly, to element of relevance(R) on traditional learning the average scores is 3.31 and raised to 4.47 when using the tablet and apps. Whilst the element of confidence(C) is 2.89 and satisfaction(S) 3.03 on traditional learning and increased to 4.19 and 4.30. relatively, the total average scores for the elements of attention(A) has the highest scores when the tablet and apps intervened to the slow learners' learning particularly on Task 1.

In the bar chart of Figure C-2 literally illustrated the total average scores for each of the motivation elements for all the slow learners for Task 2 on traditional learning and with the use of tablet and apps. The total average scores obtained is slightly different from the Task 1 as in Task 2, the app used for the tablet and apps is relatively contradictory. The slow learners used the finger to touch on the correct word for the picture displayed on the app.

The elements of attentive(A) has attained total average scores of 3.97 on traditional learning and increased to 4.24 when using the tablet and apps. The increment has similarity to the element of satisfaction whereby the total average scores is 3.83 on traditional learning and raised to 4.35 when using the tablet and apps. Perhaps, the slow learners needed to be more focus and literally more satisfying when using the finger to touch the answer when using the tablet and apps.

Figure 0-3 Total Average Task 2



The elements of confidence(C) has also shown a slight increment from 3.71 on traditional learning to 4.09 when using the tablet and apps. This is indicated the slow learners has confidence to interact with the tablet and apps when using a simple interaction method. Whilst, the relevance of the Task 3 for the slow learners is little marginal scores with 4.07 on traditional learning and marginally increased to 4.09 when using the tablet and apps. The teachers' commented, the topic in Task 3 is a possibility a difficulty for the slow learners comparable to the Task 1.

DISCUSSION

The tablet technology and apps are an advance and current technology, which broadly develop and used in people's daily life (Baloian, Pino, & Vargas, 2013; Burke & Hughes, 2018; Hassan & Mahmud, 2015; Oliemat, Ihmeideh, & Alkhaldeh, 2018). Tablet technology has become more relevant in many phases of everyday life. The use of tablet with the apps in the educational aspects has somehow enriched the learning for all ages. Thus, with the use of tablet technology allows the slow learners feel inclusive and included in the new era of technology.

Based on the results from the study, the learning for the slow learners relatively enhanced with the introduction of tablet technology and apps. The motivation for the slow learners has increased and amplified when they perform the tasks with the tablet and apps. The findings from the results demonstrated the use of tablet and apps able to be applied as a complimentary learning tool for the slow learners. The use of tablet and apps has allowed the slow learners to be more confidence and independent in learning. They have focused to complete on the given tasks and less afraid to try out to perform the task by themselves.

The slow learners have extensively been assisted and augmented with the use of tablet and apps to facilitate in their learning. The motivation elements mentioned in the methodology, incorporated in the theoretical framework have indicated a great increase on slow learner in performing their tasks. The increase of slow learners' motivation for each task has slightly raised of the average scores from the traditional learning towards the use of tablet and apps.

Relatively, the average results obtained from the reasearch for each of the motivation elements; Attention, Relevance, Confidence and Satisfaction (ARCS) has highlighted the slow learners' acceptance towards using the tablet and apps as a part of complimentary learning tool. It has indicated a good feedback and respond from the slow learners on the use of tablet and apps as a learning tools in their learning ambience. The results displayed some increases on the motivation elements average scores, especially on the element of attentive and satisfaction throughout the tasks. The slow learners had been focused and well interacted with the tablet and apps.

The tablet technology and apps embed interactive features, which makes the slow learners feels the excitement to perform the activities with the apps. The apps feature with audio and graphics attract the interest of the slow learners to learn. The use of tablet and apps has enlightened the motivation the slow learners to learn and enjoy their learning. The use of tablet technology and apps enable the slow learners able to work independently in performing the design activities. They love the colours, graphics and sound embedded in the apps. The features of the apps make the slow learners more entice to learn. They usually look forward the learning with the use of tablet and apps.

Apparently, the intuitive touch screen interface of the tablet with the apps allowed for a seamless experience for the slow learners to perform their tasks. No necessary buttons needed to perform the tasks, which probably make the slow learners less stress and it satisfied their learning needs. Therefore, used of intuitive touch screen is rather simple and less complicated for the slow learners to complete their task. This gave a sense of satisfaction to the slow learners to use the technology and accepting to their learning progression.

From the teachers' viewpoint, they have identified the tablet and apps in learning has contributed a new ambience of learning for the slow learners to seized and grasped. The use of tablet technology and apps are seemed to be more relaxing and allow an easy learning pace for the slow learners. The teachers expressed their satisfaction and contentment towards the use of tablet and apps to enhanced the learning for the slow learners' motivation to learn. They were delighted to receive the new technology to support them towards the learning for the slow learners. On the other hand, teachers perceived that applying the tablet and apps have signified a complimentary learning tool, which assisted towards the slow learners' learning. The mobility of the tablet device itself able to assisted the teachers to form the slow learners to working in-group. The teachers' mentioned as the slow learners has less relied to them compared to the traditional learning session.

For technology integration in the learning usually involves two imperative stakeholders which are the teachers and the students and with the technology itself. To ensure of the successful integration of technology into learning, it is important to make sure that the user is comfortable, the aspiration to use technology and understands how to use the technology. Therefore, with the use of tablet technology and apps is no different, and it has given the positive impact towards the learning of slow learners. The integration of tablet technology and apps has encouraged the slow learners to leverage their opportunity in learning. The tablet technology is somehow used the natural interaction and intuitive touchscreen. Thus, the slow learners able to explore their learning in natural ways and learn by trial and error when using the tablet technology and apps. The learning can be repeating and it is complemented with interest and engagement.

The impact on applying the tablet technology and apps has risen the motivation of the slow learners to learn. Noticeably from this study, the slow learners shown the positive respond towards the learning. The tablet technology given an added value which indirectly has improved the slow learners' learning ambience. As the complementary educational tool, tablet technology has extended the variety of learning tools to support the teachers for slow learners to learn.

Perhaps, the tablet technology education should be inclusive in the learning disabilities educational syllabus. This has given the opportunity for the ministry of education in assisting the policy makers to give attention to special education and learning disabilities. The curriculum should include the appropriate strategies and guidelines which to support the inclusiveness of tablet technology education in the slow learners learning and learning disabilities. In addition, towards the matter, it also needs to provide the suitable educational apps.

CONCLUSIONS

Tablet technology is considered as an interactive learning tools which able to leverage slow learners' attention to participate in learning. The features of tablets are intuitive design which make able of the user to feel comfortable to use the device successfully. The intuitive design eventually make ease for the slow learners to use the tablet. Naturally, intuitive design means when users see it, they know exactly what to do. Therefore, the slow learners are easily guided on the use of tablets for their

learning. Initially, the movement of gestures uses in performing the activities with the tablet was simply explain to the slow learners.

One of the aspects which is imperative for the study as the acceptance and attitudes of the slow learners towards the tablet technology as supportive tools in their learning. Tablet technology can be an instrument or a learning tool for the slow learners' learning. The tablet device seemed to remove the barrier of difficulties in learning for the slow learners. Tablet technology offers extensive features that able to be employ in slow learners' learning. The assistive features of tablet technology make beneficial towards the learning for the slow learners (A. A. . Gasparini & Culén, 2012; Winstead, n.d.). The multimodal features of tablets which are the sounds, animations, text and colours has improved the engagement of slow learners' attention in multisensory ways. The multimedia features with the interactive capabilities of the apps afforded to multidimensional the learning for the slow learners, especially in performing the learning activities.

The audio, graphics and ability to touch and swipe the screen when completing the learning activities demonstrated an enjoyment and excitement for the slow learners. Learning and performing learning activities with the tablet technology and apps has given the opportunity to the slow learners to interact at their own way which more relevance to them. The use of tablet technology and apps has observed as given benefits to the learning for the slow learners. The slow learners have increased the attention, create confidence and enjoy their learning session.

The uses of tablet technology are relatively advanced tools for the slow learners' learning. Consequently, the technology has stimulated a new learning to the slow learners to explore and getting the inspiration to enhance their learning. The idea of integrating the tablet technology is to perceive the capability of enhancing the motivation towards the slow learners' learning. The involvement of tablet technology has relatively assisted and facilitated the slow learner to be more confidence in their learning. It encourages the slow learners to build the self-assurance towards their own self-ability in learning. The confidence developed as the slow learners taken their own initiative to explore and navigate the tablet. They have shown the excitement to analyze the functionality of the tablet and applications provided.

The teachers found the technology were useful and able to add-on to the learning tools for the slow learners' learning. However, to fully utilize the use of tablets and apps for the slow learners' learning is insufficient. The support and guidance from the teachers are still in need to making assurance the slow learners have the confidence and able to perform whenever learning activities given to them. Additionally, according to the teachers, the use of tablet technology and apps may be more effective if each and every slow learner have their own tablet as well as the teachers. This referred to the comments by the teachers, "...if the slow learners have its own tablet, they will be able to work independently and we teachers will be there to support them."

The tablet technology is introduced to expose the slow learners to the recent technology use nowadays. The idea of enlighten the tablet technology to the slow learners are to enhance their motivation towards learning and be able to grow their learning spirit. As they are special children, therefore it is sufficient to focus the slow learners towards a better living. The study does not aim to transform the slow learners to be fast learners. However, to make the slow learners experience and feel includes in the recent technology evolvment and fearless with the technology use in daily life.

FUTURE WORK

Intensifying the knowledge on technology has also reflected towards the UNESCO 2016 on sustainable development goal 4 (SDG 4), which has mentioned on inclusive equality of education and promoting the lifelong learning opportunities for all (UNESCO, 2016). The SDG 4 identified as the needs of quality education should be offer to all comprising the children with disabilities. Establishing the technology into the education system could be part of enhancing the quality of education. Since the millennium era is generally about technology, thus it is become relevance to integrate the educational technology to the education syllabus and practicing by all students including the slow learners. Despite of the disabilities of the slow learners, the tablet technology has opened a new different ambience of learning from the usual nature. However, more suggestion and works able to be portrayed within the context of slow learners and the use of tablet technology in its learning.

On the practical aspect, the Ministry of Education (MOE) should consider to revamp or enhance the syllabus structure of learning disabilities and include the tablet education as a learning tools for the learning disabilities. Perhaps, the tablet education can be able to expend for the use to all level of children at school with the appropriate guidelines and strategies to support the embedment of tablet technology education in the syllabus. Aligned with that, the MOE probably able to restructure the financial allocation in order to offer the tablet device to the learning disabilities and providing appropriate educational app.

On the other hand, the research is believed can be extended for the apps developer to considered the imperative features which should be include in developing the apps specifically for the learning disabilities and slow learners. Perhaps, the recommendations on apps can be observed for other types of learning disabilities such as the cognitive delayed development, speech delayed development and other slow functioning learning children which rarely been identified and take note by people.

The study of tablet technology use to enhance the slow learners' motivation in learning does have a greater impact for now and future. As education is considered as the key towards the development of human capital and technology innovation, it is vital for the learning disabilities students, inclusive the slow learners, to receive educational technology as well as how others able students obtained. To create fearless situation for the slow learners, the study has accomplished the observation and familiarized the slow learners with the tablet technology for their learning. Besides, the study has established an initial foundation for the slow learners to use the technology in the future with applying the tablets in their learning.

REFERENCES

- Baloian, N., Pino, J. A., & Vargas, R. (2013). Tablet gestures as a motivating factor for learning. *ChileCHI 2013*, 98–103. <https://doi.org/10.1145/2535597.2535622>
- Binu, P. M. (2015). Affective Teaching: An Effective way to deal with Slow Learners in the ESL Classroom. *International Journal of English Language, Literature and Humanities*, 11(X).
- Burke, A., & Hughes, J. (2018). A shifting landscape: using tablets to support learning in students with diverse abilities. *Technology, Pedagogy and Education*, 27(2), 183–198. <https://doi.org/10.1080/1475939X.2017.1396492>
- Chauhan, S. (2011). Slow Learners: Their Psychology and Educational Programmes, 1(8).
- Chen, M. (2010). If Technology Motivates Students, Let's Use It! Retrieved from <http://www.edutopia.org/blog/motivating-students-technology>
- Chmiliar, L., & Anton, C. (2015). Building on What We Know: The iPad as an Assistive Technology Tool for Post- Secondary Students with Disabilities. *Journal on Technology and Persons with Disabilities Santiago, J. (Eds)*, 45–57.
- Dasar Pendidikan Kebangsaan. (2012). Retrieved from <http://jpn.moe.gov.my/jpwpkl/download/general/dasardasar/BM/BukuDasarKebangsaan.pdf>
- Dionne, C. E. (2013). An Introduction to Mobile Apps for K-12 Students with Special Needs: An Instructional Website for Educational Technology Students. (Id). Retrieved from <http://hdl.handle.net/10125/27161>
- Enriquez, A. G. (2010). Enhancing Student Performance Using Tablet Computers. *College Teaching*, 58(3), 77–84. <https://doi.org/10.1080/87567550903263859>
- Falloon, G. (2013). Young students using iPads: App design and content influences on their learning pathways. *Computers & Education*, 68, 505–521. <https://doi.org/10.1016/j.compedu.2013.06.006>
- Gasparini, A. A. ., & Culén, A. L. . AL. (2012). Tablet PCs - An assistive technology for students with reading difficulties? *The Fifth International Conference on ...*, (May 2016), 28–34. Retrieved from http://www.scopus.com/inward/record.url?eid=2-s2.0-84883254598&partnerID=40&md5=1f11b421eedf3713c745e532eac5152%5Cnhttps://www.researchgate.net/profile/Alma_Leora_Culen/publication/268421235_Tablet_PCs__An_Assistive_Technology_for_Students_with_Reading_D
- Gasparini, A. A., Gasparini, A., & Culén, A. L. (2011). Children ' s journey with iPads in the classroom Children ' s journey with iPads in the classroom, (June), 2–5.
- Goodwin, K. (2012). Use of Tablet Technology in the Classroom NSW Curriculum and Learning Innovation Centre, 1–96.
- Hassan, A., & Mahmud, M. (2015). Tablet Technology and Apps to Enhance Slow Learners Motivation in Learning (Vol. 21, p. 3165–3169(5)). American Scientific Publishers. <https://doi.org/https://doi.org/10.1166/asl.2015.6521>
- Hutchison, A., Beschorner, B., & Schmidt-Crawford, D. (2012). Exploring the Use of the iPad for Literacy Learning | Amy Hutchison - Academia. *The Reading Teacher*, 66(1), 15–23. <https://doi.org/10.1002/TRTR.01090>
- Ifenthaler, D., & Schweinbenz, V. (2013). Computers in Human Behavior The acceptance of Tablet-PCs in classroom instruction : The teachers ' perspectives, 29, 525–534.
- Keller, J. (1987). Strategies for Stimulating the Motivation to Learn. *Performance & Instruction*.
- Keller, J. (2008). An integrative theory of motivation , volition , and performance. *Technology, Instruction, Cognition, and Learning*, 6(2), 79–104. Retrieved from <http://oldcitypublishing.com/TICL/TICLabstracts/TICL6.2abstracts/TICLv6n2p79-104Keller.html>
- Kim, M. K., Park, Y., & Coleman, M. B. (2017). The quality of evidence in tablet-assisted interventions for students with disabilities. *Journal of Computer Assisted Learning*, 33(6), 547–561. <https://doi.org/10.1111/jcal.12206>
- Li, S. C., Pow, J. W. C., Wong, E. M. L., & Fung, A. C. W. (2009). Empowering student learning through Tablet PCs: A case study. *Education and Information Technologies*, 15(3), 171–180. <https://doi.org/10.1007/s10639-009-9103-2>
- Loorbach, N., Peters, O., Karreman, J., & Stehouder, M. (2015). Validation of the Instructional Materials Motivation Survey (IMMS) in a self-directed instructional setting aimed at working with technology. *British Journal of Educational Technology*, 46(1), 204–218. <https://doi.org/10.1111/bjet.12138>
- Lovato, S. B., & Waxman, S. R. (2016). Young children learning from touch screens: Taking a wider view. *Frontiers in Psychology*, 7(JUL), 1–6. <https://doi.org/10.3389/fpsyg.2016.01078>
- Malik, S. (2009). Effect of intervention training on mental abilities of slow learners. *Int J Educ Sci*, 1(1), 61–64. Retrieved from <http://www.krepublishers.com/02-Journals/IJES/IJES-01-0-000-09-Web/IJES-01-1-000-09-Abst-PDF/IJES-01-01-061-09-023-Malik-S/IJES-01-01-061-09-023-Malik-S-Tt.pdf>
- Martin, F., & Ertzberger, J. (2013). Here and now mobile learning: An experimental study on the use of mobile technology. *Computers & Education*, 68, 76–85. <https://doi.org/10.1016/j.compedu.2013.04.021>
- Monroe-Ossi, H., Ohlson, T., Wehry, S. & Fountain, C. (2013). iPad Integration in the Primary Grades : Enhancing Literacy Instruction Through Teacher Professional Development. In *EdMedia 2013--World Conference on Educational Media and Technology* (pp. 2175–2178).
- Oliemat, E., Ihmeideh, F., & Alkhalwaldeh, M. (2018). *The use of touch-screen tablets in early childhood: Children's knowledge, skills, and attitudes towards tablet technology*. *Children and Youth Services Review* (Vol. 88). Elsevier Ltd. <https://doi.org/10.1016/j.chilyouth.2018.03.028>
- Patchan, M. M., & Puranik, C. S. (2016). Using tablet computers to teach preschool children to write letters: Exploring the impact of extrinsic and intrinsic feedback. *Computers and Education*, 102, 128–137. <https://doi.org/10.1016/j.compedu.2016.07.007>
- Peraturan Peraturan Pendidikan Khas 1997. (n.d.). Retrieved from http://pelajaranperak.gov.my/v2/modules/mastop_publish/files/files_4adeb0968a4e7.pdf
- Qahmash, A. I. M. (2018). The Potentials of Using Mobile Technology in Teaching Individuals with Learning Disabilities : A Review of Special Education Technology Literature.
- Quick, N. (2014). Using iPads to improve academic gains for students with disabilities, 17(2), 116–128.

- Reddy, G. L., Ramar, R., & Kusuma, A. (1997). *Slow Learners: Their Psychology and Instruction* (First Edit). New Delhi, India: Discovery Publishing House.
- Schmidt, M. (2016). Realizing the promise of mobile devices in a one-to-one iPad initiative : Perspectives from a dual-licensure teacher preparation program in Hawaii, *10*(2), 61–67.
- Shah, N. (2011, October). iPads Become Learning Tools for Students With Disabilities. *Education Week*. Retrieved from <http://www.edweek.org/dd/articles/2011/10/19/01speced.h05.html>
- Shaw, S. (2010). Rescuing Students from the Slow Learner Trap. *Principal Leadership*, 12–16. Retrieved from <http://www.eric.ed.gov/ERICWebPortal/recordDetail?accno=EJ894654>
- Sung, Y.-T., Chang, K.-E., & Liu, T.-C. (2016). The effects of integrating mobile devices with teaching and learning on students' learning performance: A meta-analysis and research synthesis. *Computers & Education*, *94*, 252–275. <https://doi.org/10.1016/j.compedu.2015.11.008>
- Terrer-Perez, P. (2013). Digital Assistive Technology: A Core Skill for OTs Working with Children.
- UNESCO. (2016). *Incheon Declaration and Framework for Action*. Retrieved from <http://unesdoc.unesco.org/images/0024/002456/245656E.pdf>
- Urdu, T., & Schoenfelder, E. (2006). Classroom effects on student motivation: Goal structures, social relationships, and competence beliefs. *Journal of School Psychology*, *44*(5), 331–349. <https://doi.org/10.1016/j.jsp.2006.04.003>
- Winstead, S. (n.d.). 10 Benefits of Tablets in the Classroom. Retrieved from <https://myelearningworld.com/10-benefits-of-tablets-in-the-classroom/>