

Perception on Adapting the Edutainment Technologies in Private Special School: Malaysian Case Study

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Abstract

There are difference between the private and public school for the special needs learner implemented in Malaysia. Malaysia had introduced the main three programs for special needs learner under the Ministry of Education such 1) Special Education Schools 2) Integration Programs in Mainstream Schools 3) Inclusive Program. In the private special school, the program was emphasis on the early intervention process. One private special school is selected for the case study. The purpose of the study is to investigate the teachers' perception on technology whether they interested to use in their teaching environment. The teaching method was divided with several edutainment applications such as game-based learning, virtual reality, augmented reality and online animation tool. All these technologies mediums were demonstrated to know whether it could stimulated the student's attention or not. The teachers will comments the overall of the sessions. The study involved the qualitative descriptive instruments such as observation, feedback form, and informal conversation. The benefits were focused more how the teacher managed to handle this alternative teaching method for the special needs learner. Teachers' agreed that the student attention through animated object and game-based approach on edutainment provide the student to challenge themselves to finish the task.

Keywords: Special Education, Information Technology and Communication (ICT), Edutainment

1. Introduction

Each country implemented the difference policy of special education on how they categories the student with special needs or introducing the own programs (JSEAP, 2009, 2010; NISE, 2007; UNESCO, 2009b). Each program was designed to improving the student capabilities to adapt the national curriculum (Ibrahim, 2007; MOE, 2008; UNESCO, 2009a). In the end, the student will able to manage themselves by

improving the academic, social skill and communication skill (Ibrahim, 2007). In Malaysia, the special education started since the parliament committee agreed and announced the Education Regulation (Special Education) in 1997 (Ibrahim, 2007; JSEAP, 2010). Malaysia had introduced the main three programs under the Ministry of Education such 1) Special Education Schools 2) Integration Programmes in Mainstream Schools 3) Inclusive Program. In the private special school, the program was emphasis on the early intervention process. Moreover, the student can be inclusive in the mainstream school if they manage to reach a standard requirement (Yusof, Daniel, Abdullah, & Aziz, 2011).

Malaysia government revised the policy with included the special education into the new paradigm which blended with the technologies (MDeC, 2009; MOE, 2010). Previously, the New Zealand Government had promoted their three factors strategies to transforms the community to engage with technologies which called Connect, Content and Confidence (3C)(Ponter & Brown, 2007). The combination education and entertainment will encourage the student with special needs to gain their engagement in their learning (Reich & Daccord, 2009; White, 2003; Yusof, Daniel, Abdullah, & Aziz, 2010; Yusof & Song, 2010). The information might need to change into more interactive information to gain the student attention and the conventional approach might not give the advantages for the students (Armstrong, 1999; Chuanga, Leeb, Chena, & Choua, 2009; Karime, Hossain, Saddik, & Gueaieb, 2008; Laghos, 2010; Mayer, 2003, 2009; Time-scout, 2010; Wah, 2010).

Thus, the edutainment such as Web 3.0 application, augmented reality, virtual reality, and cloud computing provide the alternative way in blended learning environment (K. A. Aziz, Aziz, Yusof, & Paul, 2012; N. A. A. Aziz, Aziz, Paul, Yusof, & Noor, 2012; Laghos, 2010; Yusof et al., 2010). The purpose of study to define the teacher perception on the alternative edutainment technology which implemented for special needs learners in private special school.

The researchers done the preliminary study on the education system in Malaysia which consist the inclusive program align with the national public school. The process of student who have special abilities until they will join the inclusive program was presented (Please refer the Figure 1). The differences between public and private school intervention were the content and the pedagogical approaches before they joined the national inclusive program. As result, they showed their interest to use technologies in their classroom but face the limitation of resources and pedagogical approach that connecting the lesson and the technologies. Moreover, the confident of teachers to use ICT (Information Communication Technology) in their classroom was still questionable.

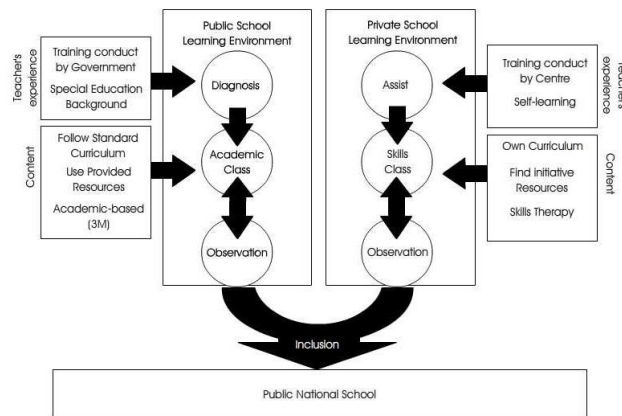


Figure 1: Conceptual Model for Scenario Special Education in Public and Private School Yusof et al.

(2011)

Therefore, the researchers realized the usage of edutainment technologies for special education still in the initial stage. The study was conducted to test and get teacher perceptions' feedback when the new alternative approach was proposed.

2. The Purpose of Study

The study was focus to get the feedback from the teachers on the alternative technologies which applied for student with special needs in the early intervention. The group students was selected from one private school that arrange

3. Research Method

The study was conducted the convenient sample in one private school in State of Melaka (located in the Southern region of Peninsular Malaysia). The teachers' feedback was collected from open ended questions and informal conversation with teacher who involved the test session. Moreover, the observation also conducted.

3.1. Procedure

Class demo session was conducted to observe the capabilities of edutainment approaches which applied. There are four types of edutainment activities which selected based on preliminary study was conducted by Yusof et al. (2010):

- Augmented reality activities
- Virtual Game based activities
- Game based online
- Online Animation

All these session were demonstrated in the classroom and the feedback was collected. Before the demo session was started, the researchers brief the teachers experience on teaching methods and their ICT capabilities. The researcher want to know the how teacher use ICT for their student in the classroom and what kind of teaching method that they used. End of the demo session, the teacher will give simple questions to describe their perception on implementation of edutainment application from early intervention.

3.2. Participate

The study was conducted in the private school for special needs learner by using the purposive sampling. There are four selected student chose for the demo session that was conducted. For ethical issues, the researchers distribute a consent letter to their parents for permission of involving their children in this activity. Majority of student was diagnosis as Autism symptoms was selected (please refer Table 2).

Table 1. List of Teachers with Academic Achievement

Code #	Age	Working Years	Academic Achievement	ICT experience
SK01-T1	-	17	Kindergarten Teaching Training	Basic
SK01-T2	40	5	SPM	Basic
SK01-T3	25	5	Diploma in Learning Disorder Management	Basic
SK01-T4	41	1	SPM	Basic

SK01-T5	-	1	LCCI Intermediate Account & Book-keeping (Level 2)	Basic
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Table 2. List of Students who Participating the Testing Class

Code #	Age	Gender	Type of Special Needs
SK01-S1	6	Male	Autism
SK01-S2	5	Female	Autism
SK01-S3	5	Female	Autism
SK01-S4	9	Female	Autism

4. Finding & Discussion

The study was conducted to demonstrate the teachers the alternative teaching tools that support by edutainment application. Majority of teachers have a good experience using the computer as tools in the classroom. Table 3 showed that the institute provides the good facilities that stimulated student's computer literacy skill.

Table 3. Teaching Method

Code #	Teaching Method	ICT lesson experience
SK01-T1	I use the education tool such as books, toys, games, activities cards, objects and picture, etc.	Children play edu-game and learn vocabulary from touch screen computer
SK01-T2	Toys and books.	Use touch screen computer
SK01-T3	Toys, books, worksheets, one to one method (teacher and student)	Using touch screen computer during the lesson (educational games)
SK01-T4	Toys, books, worksheets, one to one method (teacher and student)	Use touch screen computer
SK01-T5	Motor Gross Skill, Language and communication, Attention and memory, Fine motor, Reading, Writing & early numbers, self-help skill, social development	Child Computer programme

In the demo session, the teacher had explained some useful impact that effect the student in early intervention class, Teacher explains the students easily to understand how to operate the animation tool. Teacher also responses the benefit of game virtual reality that encouraged the student gesture therapy. *"Game -virtual reality very nice... very, very nice"* said Teacher SK01-T4. Teacher also response that only student with high function can be involved the activity because the students need to have basic knowledge in computer. The critical issues on cultural that force them to face the language constraint. Majority of students used their mother-tongue language (Malay, English, and Mandarin) as the conversation. The teacher said it really hard to explained and give the instruction. Moreover, the age student was range between 5-9 years old.

The researchers asked on how the teacher to improve instruction and applied in their classroom. The teachers felt confidence to apply the edutainment element in teaching method. Teacher SK01-T1 said *"Will try to use by myself and gain enough confident so that I can teach my student in future"* and Teacher SK01-T2 responded that *"I will try several times until I get confidence in this topic"*. The researcher also asked on how what teachers will have learned change instruction and assessment in your classroom. Teacher SK01-T1 said *"Maybe children will pay more attention by using this method"* and

SK01-T2 also said “*Maybe have changer*”. The teachers responded the edutainment were gaining the positive impact but still the certain expect need improve continually.

Most importantly, the researchers conclude that there are some strategies that help the student abilities to engage by having the edutainment environment in the classroom. The researchers noted the strategies for the future improvement for special needs learner in early intervention.

- The game-virtual reality had given the good benefit as body therapy for students in early intervention.
- Animation tool provide good to build their attention. The students were concentrate when builds their animation by their own.
- Augmented reality and drag n drop activity successfully finish by the students. However the activities were assisted by teacher.

5. Conclusion

In conclusion, adapting the edutainment in the classroom with good facilities with ICT can encourage the students more excitement. Moreover when teachers with a confidence to use the technologies and applied to their classroom responded the useful of edutainment technologies that can implemented in the future.

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