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EXPLORING THE READINESS OF TEACHERS IN THE USE OF MOBILE GAMIFICATION TO HANDLE THE DISRUPTIVE BEHAVIOR OF STUDENTS WITH LEARNING DISABILITIES

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ABSTRACT

The problem of disruptive behavior of students with learning disabilities causes special education teachers to experience stress in the classroom often. The purpose of this study is to explore teachers' readiness to use gamification against the disruptive behavior of students with learning disabilities. This study uses a phenomenological design to explain and deepen the experience of a phenomenon. A total of three special education teachers at Sekolah Kebangsaan Bandar Teknologi Kajang, Selangor were selected as the study sample through purposive sampling techniques. A structured interview instrument was used to obtain data from the respondents. This study uses several data collection procedures obtained from the Education Policy Planning and Research Division (eRAS) and the study school. Next, structured interviews were conducted after a pilot study was conducted at the study site. Finally, Nvivo 12 software was used to analyze the data. The study's findings show that special education teachers are still less prepared to use mobile gamification more systematically and consistently in their learning and facilitation of the classroom. The implication of this study is to give special education teachers an idea of the advantages of using various mobile gamification applications in the classroom to overcome the behavioral problems of students with learning problems. Therefore, special education teachers should be prepared for the application of mobile gamification in their learning and facilitation of the classroom for the smoothness of the learning and facilitation of the classroom process and student success.

Keywords: disruptive behavior; special education teacher; students with special needs learning disabilities; mobile gamification, teachers readiness

1. INTRODUCTION

Mobile gamification is a 21st-century educational medium by combines information and communication technology to encourage the involvement of pupils in the classroom. According to Eutsle et al. (2020), gamification in learning and digital mobile devices is now usually considered an effective teaching tool for the young generation. Based on the empirical evidence of recent studies, the success of digital games in education has shown that gamification can increase motivation, engagement, and social influence while enabling students to participate in experience-based learning (Lopez & Tucker 2019; Groening & Binnewies 2019). Gamification can increase the activities and involvement of pupils in the learning process of Takbiri et al. (2019) and increase

participation (Tamtama, G. I. W. et al. 2020). Thus, students with special education needs are also not left behind in following 21st-century learning with the application of gamification methods.

Special education needs students are often seen to have different behaviors from other typical students. According to Hashir, A. V. (2021) one of the challenges of special education teachers in the classrooms is behavior problems. Negative behaviors are divided into three types, namely disruptive behavior, destructive behavior, and dependent or stereotyped behavior. Studies conducted in special education schools showed that 53% of the 321 pupils (3–19 years old) exhibited at least one type of challenging problematic behavior (Nicholls et al. 2019). However, disruptive behavior is a common behavior among special education students with learning disabilities.

Classroom management is one of the most important dimensions of the teaching and learning process. It is believed that good classroom management helps improve students learning outcomes (Slater & Main 2020); effectively addresses behavioral problems in children (Zulkifli et al. 2019) and helps reduce the disruptive behavior of students in the classroom (Affandi et al. 2020). Special education teachers take responsibility in terms of effective curriculum implementation not only addressing academic needs but also behavioral needs (Haskel, 2018). The Mensah study (2021) shows the main factors that cause behavioral problems are negative attitudes from teachers, inappropriate teaching methods, family nature, and classroom environment. This is in line with the Hambrick study (2021) which shows the lack of knowledge and experience in teaching students with behavioral problems in the classroom also reduces the effectiveness of the teaching process.

Therefore, the application of methods to overcome students' behavioral problems should be proactive (Chitiyo et.al 2022). According to Annasaii & Mohd Aderi (2020) in 21st-century learning, teachers are the main axis to help produce quality and excellent students, where teachers act as a driving force in ensuring that the learning and facilitation of the classroom process can run properly and effectively. Teachers from various countries support the opinion that gamification has a positive impact in promoting an interactive, fun, meaningful environment and encouraging positive behavior of students (Başal & Kaynak 2019; Me et al. 2020; Fernandez-Rio 2020). This is also supported by Kang et al. (2020) gamification involving children playing computer games that involve them in target behavior, to imitate them later in real life. The mobile gamification method is known as a suitable method to overcome the disruptive behavior of special education students with learning disabilities. Therefore, this study explores teachers' readiness to use mobile gamification toward the disruptive behavior of students with learning disabilities.

2. LITERATURE REVIEW

Students with special needs not only experience diversity in disability but they often experience problematic behavioral issues known as disruptive behavior. The issue of teachers addressing the problem of disruptive behavior in the classroom of students with learning disabilities is urgent (Gustems-Carnicer et al. 2019). The Briana Bronstein et al. (2020) study states that 43% disruptive behaviors of students with learning disabilities reported are "disrespectful behavior" defined as behavior of conduct or not doing something, such as "not following instructions," "absent," "unfocused," "lack of focus,". Special education students with learning disabilities in primary

school more often cause disruptive behaviors such as disciplinary offenses, interrupting classes, receiving comments from teachers, and often being called by school headteachers for disciplinary offenses (Zakopoulou et al. 2018). There are various implications for the impact of the disruptive behavior of students with learning disabilities is not well managed. In the classroom context, uncontrollable disruptive behavior will interfere with and lead to less effective learning and facilitation of the classroom process (Kirkpatrick et al. 2020). However, the use of mobile gamification in learning and facilitation of the classroom process can encourage positive behavior among pupils.

There is some research has shown positive changes that gamification has the most success with students with learning disabilities (Wajiuhullah et al. 2018; Lan et al. 2018; El Mawas et al.,2019). Learning to use gamification makes students feel happy and can increase their confidence and motivation in learning (Tamtama 2020). Meanwhile, Jogo (2022) also supports this opinion by saying gamification can also increase the involvement of students in the classroom. A gamification system built with rewards can increase students engagement and develop behavior (Helmefalk & Rosenlund 2019; Mulcahy et al. 2021; Aguiar-Castillo et al. 2019).

Nurtanto et al. review (2021) shows the positive effects of gamification on students behavior and learning outcomes including affective, cognitive, and performance or other. According to Kannamah (2019), teachers deal with the problem of disruptive behavior through kinaesthetic gamification (KG). Observations carried out by teachers show that the disruptive behavior shown by ADHD students is decreasing over time. In addition, the ability of students with special needs to manage themselves without the guidance and help of others is something very difficult. The approach of gamification can be used as an intervention to foster desired social and behavioral skills among students with special needs. The results of the Kanga and Chang (2019) study also proved that the gamification approach 'The Kinect sensor' 6 Autism students show improvement in the correct way of bathing without guidance.

The Vargo and Brown (2020) study, on the other hand, compared the effectiveness of traditional gamification with mobile gamification variations of the ClassDoJo and ClassBadges apps. The study sample was six high school male students diagnosed with autism. Hail studies show all three forms of gamification produce a similar decrease in disruptive behavior among students. During the initial base phase, disruptive behavior occurs during an average of 55% intervals (range, 48%–64%). When the intervention phase is implemented, disruptive behavior decreases immediately and significantly in all variations of gamification. Disruptive behavior averages 7% (range, 5%–10%) traditional gamification, 4% (range, 2%–6%) ClassDoJo and ClassBadges. However, four out of six participants showed exclusive preference for one of the gamifications, namely ClassDoJo and ClassBadges mobile gamification. Thus, the mobile application promotes the positive behavior of students with learning disabilities in the autism category.

Overall, the gamification approach in learning and facilitation of the classroom process has good potential in the education system. The mobile gamification approach is not only used in learning and facilitation of the classroom process in Malaysia but has expanded in the education system globally. Developed countries such as the United States, Australia, Singapore, and others also use the gamification approach in their studies to promote positive behavior of students with learning

disabilities during learning and facilitation of the classroom process as well as achieve academic success. There is strong evidence based on past studies showing that the gamification approach has had a positive impact on students with learning difficulties to develop their potential in various aspects such as cognitive, social, emotional, and behavioral (Gonzalez et al. 2020). Therefore, teachers should be prepared to apply the gamification approach in their learning and facilitation of the classroom process.

According to Gonzalez et al. (2020) the gamification approach in learning and facilitation of the classroom process has good potential in the education system. In fact, according to Ding et al., (2018) the support and permanence of participation in gamification pedagogy is still challenging despite its technological development and its great impact on learning and teaching. In addition, Goksun and Gursoy (2019) think the concept of gamification is still new in the education sector. Siti Rahaimah and Norazlin (2019) explained that teachers' teaching methods need to be diversified to meet the learning needs especially the diversity of students by discovering their talents. Some teachers do not reflect an appreciation attitude towards their teaching which raises doubts until students refuse education (Ahmad et al. 2022). Mulingbau and Ting (2020) stated that the teaching methods, strategies, and techniques of teachers should follow the current situation that takes place in a class. However, the Jawas and Zulkifli study (2022) explains that special education teachers creativity in teaching students with learning disabilities is still challenging. Some teachers still adhere to the learning and facilitation of the classroom process process which is in the form of chalk and talk without implementing interesting and fun lessons (Abdul et al. 2019).

In the Ab Rahman et al. (2021) study, not all teachers have specific skills to teach students with learning disabilities, especially in the application of information technology. Teachers need to possess technical skills and teaching experience in line with the needs of the times and the passage of time. Information technology and gamification are mutually intertwined with each other. Thus, the weakness in information technology also negatively affects the use of gamification. This is in line with the findings of the Emmanuel Fokides et al. (2019) study showing that digital games are underused among trainee teachers as an educational tool although they agree that the teaching method has a positive effect on pupils. Game experience and the level of technological skills become factors that influence the attitude of trained teachers.

On the other hand, Zainuddin et al. (2020) prove the main cause of learning failures with the use of mobile gamification is the use of instructional design elements, games, and technical problems. In addition, classroom problems and technological infrastructure such as malfunctioning computers or power outages and the internet are also among the obstacles to the success of mobile gamification in learning and facilitation of the classroom process. Mookan et al. (2021) also stated the competency of teachers in mastering technology and communication skills as well as the lack of technological infrastructure in schools among the deterrent factors in the use of gamification. The findings of Me et al. (2020) also proved that 'inadequate technological support', 'lack of support materials', and 'lack of teacher resources available for training' are at moderate levels. Such constraints are a barrier for teachers to apply mobile gamification methods in their learning and facilitation of the classroom process

Nowadays, teaching strategies not only include frameworks from past approaches but also support their merger with discoveries and technologies for the improvement of the education system (Florian 2021). However, the Tasaratha and Yatim (2022) study found that the perception of the level of readiness of SJKT teachers in the South Kinta District towards the use of mobile gamification in learning and facilitation of the classroom process shows all the variables that is perception of teacher readiness, knowledge of teacher readiness, skills towards teacher readiness and challenges and issues of being at a moderate level overall. This shows that the willingness of teachers to use mobile gamification in learning and facilitation of the classroom process in primary schools in the South Kinta District is still at a moderate level. This is also supported by the findings of the Iberahim and Noor (2019) study which states that the gamification practice of primary school teachers in the state of Johor is at a moderate level even though the level of teacher bias is at a high level.

Teachers' knowledge is something that leads to the challenges of implementing learning and facilitating the classroom process in the classroom. Knowledge refers to information known to a person Abdul Halim et al. (2020). However, teachers have limited knowledge of the application of mobile gamification as a support in the learning and facilitation of the classroom process. According to Pektaş and Kepceoğlu (2019) the suitability of the subjects is also another obstacle for teachers because teachers consider gamification not suitable for all subjects. This is supported by Me et al. (2020) which states that (45.5%) of pre-service teachers agree that there is a 'lack of availability of gamification that matches the subject area It is clear that only a few teachers use the mobile gamification method in their learning and facilitation of the classroom process.

Past studies have stated that teachers are constantly facing various challenges, especially the learning and facilitation of the classroom process (Rohaizat 2019) approach. Among the context of the challenges faced by teachers include qualifications, competencies, support, and motivation of teachers (Seriayuna 2019). This is due to the willingness of teachers who perform lessons in the classroom to face time constraints (Norazizah &Khairul, 2022). Teachers have limited time to carry out the gamification due to the need to meet all the necessary curriculum standards (me et al.2020). In turn, the high burden of duty caused some teachers to experience burnout due to tasks given out of hours and even forced to work overtime. Therefore, teachers have time constraints to provide gaming applications that are gamification mobile. This is in line with the opinion of the Fernandez-Rio *et al study.*, (2020); Me *et al*., (2020) which proves time has become a common reason given by teachers for the use of gamification in their learning and facilitation of the classroom process.

From a different perspective, Yildiz et al. (2021) studied the impact of gamification on the level of motivation of pre-service teachers in teaching social studies. Quantitative and qualitative mixed study methods were used in this study. A sample of 56 pre-service teachers was divided into a control group of 20 people and an experimental group of 36. Qualitative results show that they have a positive opinion about the lesson, that is, the lessons become more fun. In addition, the participants noted that gamification adds a fun contest to the lesson and they intend to use it in their lessons in the future.

In conclusion, past studies have shown that most teachers still use the mobile gamification approach in their learning and facilitation of the classroom process although this approach is effective in promoting active engagement and improving the positive behavior of students with learning disabilities. A special education teacher needs to have knowledge and skills in the subjects taught, and teachers also need to know about the special needs students themselves and the necessary learning support. The high readiness of special education teachers in creative and exciting learning and facilitation of the classroom process increases the involvement of learning problems throughout the teacher's learning and facilitation of the classroom process in the classroom. Therefore, a teacher needs to take a major step in bringing about a change in the learning and facilitation of the classroom to drive the success of students with learning disabilities.

3. RESEARCH METHODOLOGY

3.1. Study Design

Research design is an action plan that guides and assists researchers throughout their study (Arumugham 2021). It serves as a guide and guidance to researchers to collect, analyze, and interpret detailed data from the studies conducted (Yusof 2022). The study uses a phenomenological design. This study design is suitable for use because according to Moustakas (1994) the study of phenomena is used to explain and deepen the experience of a phenomenon. Therefore, the design of this study was used to explain the readiness of three special education teachers towards the use of mobile gamification for the behavior of students with learning disabilities.

3.2. Population and Study Samples

According to Chua (2011) the population is a group of individuals with similar characteristics. The sample of the study means the individuals selected to represent a population in the study conducted (Gay and Airasian 2003). This study is qualitative. Therefore, the number of samples selected should not be too large or too few and should be a reasonable number. The study consisted of three special education teachers with learning difficulties who were located at Sekolah Kebangsaan Bandar Teknologi Kajang, Selangor. The total number of samples selected based on the proposal submitted by Haplin (1957) did not exceed five respondents. According to him, a small number of samples for interview purposes are sufficient. This is because excessive sample studies interfered with the main findings of the studies conducted (Masor 2010).

3.3. Sampling Technique

For study sampling, researchers use purposive sampling where the group of respondents representing the population to be studied is identified and all individuals in the group are taken into account as samples (Kamarul et.al 2011). Therefore, the criteria set for the sample of this study are:

i) Special Education Teachers in the Integrated Special Education Program for students with learning disabilities
ii) Teachers who are experienced in teaching students with learning disabilities for

3 to 20 years.
iii) Teaching one or more subjects

All the sample studies were Special Education teachers with 3 to 20 years of teaching experience. In line with the Education Services Commission Circular No. 3 of 2018, teachers who have been teaching for three years are eligible for confirmation of office and have fulfilled other requirements provided by their respective Heads of Departments. This period of staffing helps researchers ensure that the study samples have sufficient experience in dealing with learning disabilities students in their schools. As for the teacher's experience with students during learning and facilitation of the classroom researchers assign subject teachers because they spend a lot of time with students with various teaching methods.

Researchers have selected the Special Education Program for Learning Disabilities SK Bandar Teknologi Kajang in the district of Kajang, Selangor. The school was chosen because the school is located in the Selangor city zone which consists of 89 MBPK learning difficulties. The number of special education teachers is 10. By selecting this school researchers can identify the knowledge and readiness of special education teachers in the use of mobile gamification to address the disruptive behavior of students with learning disabilities.

Table 1: Number of samples selected through purposeful sampling techniques

TEACHER	TEACHING EXPERIENCE	JANTINA
Teacher PK 1	8 Years	WOMAN
Teacher PK 2	13 Years	MAN
Teacher PK 3	15 Years	WOMAN

3.4. Study Instruments

Researchers used structured interview instruments in this study because interviews allow researchers to obtain information about a situation or issue studied (Sekaran 2000). The researcher chose this instrument to obtain information directly from the study respondents. Interviews Face-to-face in this study aims to obtain meaningful, accurate, and in-depth information from respondents. This is because usually, an individual is comfortable and easy to act orally than in writing.

The interview questions are divided into three parts, namely part A, part B of part C and part D. Part A contains interview questions about the background of the researcher. Part B is the interview question related to the teacher's knowledge of the use of mobile gamification on the behavior of students with learning disabilities. Part C is an interview question related to the readiness of teachers in the use of mobile gamification against students with learning disabilities. Part D is a question item related to the teacher's challenge in the use of mobile gamification against students with learning disabilities. The interview questions were adapted and modified from the Ranjanie study (2020). The items in each section will be built on the question of the study.

3.5. Data Collection Procedure

Several steps need to be taken before a study is conducted so that the study goes smoothly without any hindrance. Among them is that the researcher needs to obtain an application for permission to conduct a study from several parties. The studies were approved by the Education Policy Planning and Research Division and the study schools. Before conducting the actual study, a pilot study was conducted to test the validity and reliability of the interview questions built. Pilot studies were conducted to assess the appropriateness of the study design and also to assess the applicability or effectiveness of each question in an interview. A total of two special education teachers of the Sekolah Kebangsaan Bandar Teknologi Kajang who had the same characteristics as the actual respondents were selected as the respondents of the pilot study. This qualitative study used the Guba and Lincoln approach (1985) to determine the validity and reliability of this study. He has used phrases such as credibility, amendment, authority, and certainty to describe validity and reliability in qualitative studies. After assessing the validity and reliability of the conducted interview, a real interview is conducted.

In this study, the researchers used structured interviews where researchers built interview questions based on the question of the study being built. The structured interview is chosen because the interview is carefully planned and it will be conducted according to the questions to be given. In addition, this interview will be conducted formally. In addition, the questions to be given will be paralleled with the objectives of the study. While conducting a real interview, the researcher applied for permission from the head teacher of the school involved. We set the daytime and duration for conducting the study at the selected location. The information obtained from the interview is transcribed to determine the appropriate theme. Researchers use Nvivo 12 software to analyze the interview data obtained.

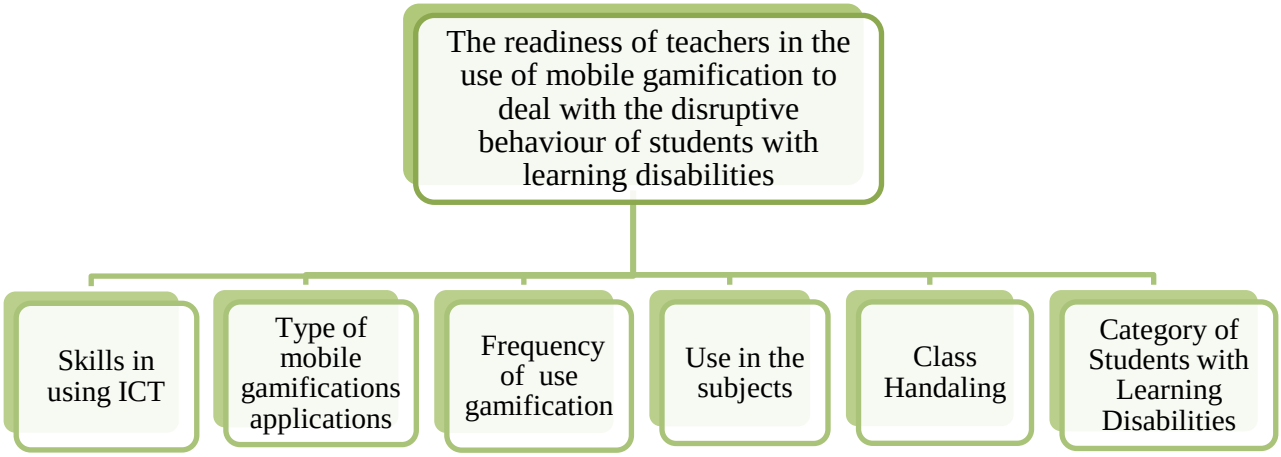
3.6. Data Management and Analysis

In this study, all audio recordings taken must go through several stages, namely data cleaning, understanding data, and data analysis for building code. All recorded interviews are transcribed first using the Digital Voice Editor software to enable researchers to record what is left behind when the data is collected. In the process of understanding the data, the researcher reads and examines the transcripts made several times. Researchers use Nvivo 12 software to analyze data from interviews conducted. The researcher transferred the data that had gone through the data clean-up process to Nvivo 12 software. Researchers identify the code from the data collected and this is done repeatedly. Researchers use different colors for each identified code. Discrepancies in the encoder are avoided by creating a decryption of each code built by using the software.

4. FINDINGS

This section discusses the question of the study which is what is the level of readiness of teachers in the use of mobile gamification to address the disruptive behaviour of students with learning disabilities? The question of this study is answered through 6 main themes namely skills using technology, types of gamification applications, frequency of use gamification, use in the subjects, class handling, and category of students with learning disabilities.

Figure 1: The readiness of teachers in the use of mobile gamification on the behaviour of special education students with learning disabilities SK Bandar Teknologi Kajang



4.1. Skills in using ICT

Teachers need to master ICT skills to apply mobile gamification. Teachers who master ICT can bring change in their learning and facilitation of the classroom with the use of various mobile gamification applications to encourage the active involvement of students. Teacher A stated that there is a moderate level of skill in the use of ICT for mobile gamification applications. Based on the interview results of the B teacher, he has sufficient skills in the use of ICT for the application of mobile gamification. Teacher B also thinks that ICT skills are important nowadays. Therefore, he always uses laptops and smartphones for gamified learning and facilitation of the classroom. Meanwhile, the C teacher stated that he is also well versed in the use of technology but still needs the guidance and referral of colleagues.

> *Teacher A: "I set my skill level from a scale of one to ten, I am at level seven for my skill in using laptop or smartphone facilities to run learning and facilitation of the classroom with mobile gamification against disruptive behavior of students with learning disabilities. So I need skills and guidance in the use of ICT to encourage more effective learning and facilitation of the classroom ".*

4.2. Types of mobile gamification applications

The results of interviews with special education teachers prove that several mobile gamification applications are commonly used among them to implement effective learning and facilitation of the classroom. Teachers A, B, and C stated that Wordwall, Kahoot, Plickers, and Class Dojo applications were among the mobile gamification applications used.

Teacher B: "Usually I use a mobile gamification application in learning and facilitation of the classroom to control students disruptive behavior such as Kahoot, Word Wall, and Plickers".

4.3. The frequency of using gamification

The mobile gamification applications that are frequently used in the classroom encourage the active involvement of pupils throughout learning and facilitation of the classroom Based on the results of the interview of teacher A he uses mobile gamification three to four times a week. He also explained that the use of mobile gamification is more focused on first-graders. However, B and C teachers said they only used mobile gamification for two days during the five school days. Teacher C is also of the opinion that the use of mobile gamification depends on the situation and most of the students are excited when the teacher brings the laptop to the classroom because they are interested in mobile gamification applications.

Teacher C: It depends on the situation too... But now it's twice a week.. and my students, when they see me open their laptops, they start getting excited because they get something like this.. the teacher wants to play this game...

4.4. Use in the subject

The results of interviews with teachers of special education stated that mobile gamification is suitable for use in only a few subjects. Teachers A, B, and C stated that they only use mobile gamification applications in certain subjects. Teacher C also said that the use of mobile gamification also depends on the topic of their teaching on the day.

Teacher A: "I do not use mobile gamification in all subjects to control the disruptive behavior of students with learning disabilities only a few subjects are felt to be used for them"...

4.5. Class Handling

Special education teachers need to be ready in the conduct of classes with the application of mobile gamification for students with learning disabilities. Good handling can help in shaping positive behavior among students. Teachers can also run more effective learning and facilitation of the classroom According to teacher A he was able to conduct classes using mobile gamification to control disruptive behavior. Teachers B and C have different opinions and they think that the conduct of classes depends on the number of pupils available in the classroom. They also said they experienced a lack of scrutiny in controlling overstretched pupils while using mobile gamification. Teacher C stated that students with learning disabilities of various categories caused them to have problems controlling pupils while using mobile gamification.

Teacher C: "Ahhhh... It also depends on the number of students and the diversity of special education students with learning disabilities in my class. It means that if there are no

> *tantrums that day, it is easier for me to implement my learning and facilitation of the classroom with learning disabilities students who have disruptive behavior... The reason is that if there is a bad tantrum it is difficult for me to implement the mobile gamification application in my learning and facilitation of the classroom...*

4.6. Category of Special Education with Learning Disabilities

Special Education with Learning Disabilities consists of various categories. Therefore, special education teachers need to have the willingness to manage students with learning disabilities during the application of mobile gamification. Teacher A thinks that he does not apply mobile gamification to all categories of students with learning disabilities. This is because the background factors of the students are different and require special knowledge to overcome distruptive behavioral problems. Teacher B, on the other hand, thinks that not using mobile gamification for all categories of students with learning difficulties as there are a few students who need hands-on activities that do not require mobile gamification and he uses it for students who are interested in participating. Teacher C also has the same opinion as teacher B who stated that the application of mobile gamification depends on the acceptance of the students. He will use mobile gamification if students can show positive behavior. He will use other alternatives if he does not bring about any changes.

> *Teacher A: "For me, I am unable to apply mobile gamification to all categories of students with learning disabilities to overcome the behavior in my school because the background and categories of students are different and it requires special knowledge to overcome every problem faced by the students".*

5. DISCUSSION

5.1. Skills in using ICT

The use of ICT needs to be appropriate for its use to have a meaningful impact on students (Mohd Aderi and Annasaii 2021). One of the study participants thought that he had a moderate level of skill in the use of ICT for mobile gamification applications. According to the study Ab Rahman et al. (2021) not all teachers have specific expertise to teach with students with learning disabilities specifically in the use of information ICT. Thus, the weakness in information ICT also negatively affects the use of gamification. Moreover, teaching methods are traditionally the choice of most teachers over technology teaching due to a lack of expertise in the use of ICT in teaching and learning (Nur Aisyah and Hazrati 2021).

In addition, there were study participants who stated that they would consult colleagues in the use of ICT for the implementation of mobile gamification. This is in line with the opinion of Abdul Razif et al. (2018) which proves that the problems faced by teachers are the ability, use of technology and teaching aids (ABM). Mookan et al. (2021) also stated the competency of teachers in mastering technology and communication skills as well as the lack of technological infrastructure in schools among the deterrent factors in the use of gamification. In addition, the use of other ICT tools such as LCD, TV, cassettes, and others is also a barrier to the use of mobile

gamification. This makes teachers less effective in learning and facilitation of the classroom in the classroom. (Abdul Razif et.al. 2018). Another study participant stated that he had deep skills in the use of ICT . He also noted that ICT mastery is important in the application of mobile gamification. The findings of Chew and Suziyani (2021) support this opinion which shows that teachers in Kuala Selangor district have a high level of technology skills.

5.2.Types of mobile gamification apps

Some research has shown that gamification applications bring success and improvement for special education pupils (El Mawas et al. 2019; Lan et al. 2018). The study participants have proven that some of the most common applications used by them are Class Dojo, Kahoot, wordwall, and Plickers to overcome students with learning disabilities. This is supported by the Ranjanie study (2020) which states that special education teachers think that the Classdojo application is very helpful in classroom control as well as reducing the distruptive behavior of students with learning disabilities. The findings also prove that there has been a significant change in the behavior of students with learning disabilities throughout using the ClassDojo app. Molina, JA et.al (2019) proved that the use of Kahoot applications in PdPc has a positive effect on the achievement of students in the classroom.

Next, the findings of the Ritchie Len et al. (2021) study showed that the use of word wall games in History education encouraged secondary school students interest in the subject. Meanwhile, Anandha et al. (2021) have proven in their research that Kahoot! Attract interest, bill, and motivate students to learn and achieve more. Aizuddin and Nadiya (2019) concluded that the concept of entertainment using interesting applications such as Kahoot!, Quizizz, and Quizlet should be used in teaching and learning. The Mshayisa study (2020) also showed that the use of gamification methods such as Plickers can increase the involvement of pupils in the classroom.

5.3. The frequency of using mobile gamification

Based on the interview results of the study participants, the frequency of use of mobile gamification differed from each other. One of the study participants used mobile gamification three to four times a week and he focused more on first-graders, namely pupils in the age range of seven to nine years. This is in line with the Yildiz et al. (2021) study examining the effect of gamification on the level of motivation of pre-service teachers in the use of mobile gamification in the teaching of social studies. The findings, obtained after a four-week application period, the motivation of the teachers of the experimental group was found to increase significantly compared to the control group. On the other hand, qualitative results show that they have a positive opinion about mobile gamification which is that lessons become more fun and they are willing to use it in learning and facilitation of the classroom Yaşar and Karatas (2020) prove that teachers are ready to apply gamification in teaching and learning in the future.

Meanwhile, two study participants used mobile gamification for two days in five school days. They noted that the use of mobile gamification depends on the situation. This is in line with the Fokides and Kaimara (2020) study conducting several surveys on teachers' perceptions of mobile gamification. Quantitative data has shown that trained teachers are reluctant to use mobile as an

educational tool even though trained teachers seem to agree that such teaching methods have a positive effect on pupils. In addition, the Tasaratha and Yatim (2022) study found that the perception of the level of readiness of SJKT teachers in the South Kinta District towards the use of mobile gamification in learning and facilitation of the classroom showed that all variables that is the perception of teacher readiness, knowledge of teacher readiness, skills on teacher readiness are at a moderate level overall. It is clear that there are teachers who still lack the application of mobile gamification in their learning and the facilitation of the classroom.

5.4. Use in the subject

The results of the interview showed that the study participants used only mobile gamification applications in certain subjects. The study participants also said that the use of mobile gamification also depended on the topic of their study on the day. According to Sánchez-Mena and Martí-Parreño (2017) this may be because teachers do not fully know the potential for gamification in education and believe that gamification can only be applied to several subjects. Furthermore, the suitability of subjects is also another obstacle for teachers as teachers consider gamification inappropriate for all subjects (Pektaş and Kepceoğlu, 2019; Me et al. 2020).

In addition, according to Me et al. (2020) pre-service teachers agree there is a lack of availability of mobile gamification corresponding to the subject area. Furthermore, the results of the study (Kaimara et al. 2021; Mertala 2019) concluded that the use of gamification among teachers is decreasing as they are not convinced that the game can improve the effectiveness of the teaching and learning process. Thus, teachers use only a few specific subjects.

5.5. Class handling

According to one of the study participants he was able to conduct classes using mobile gamification to control distruptive behavior. This is evidenced in the Başal and Kaynak study (2019) which states that teachers from different countries agree on the effectiveness of gamification especially in helping students learn in a fun, interactive, and meaningful environment. The findings of Mohd Faruze and Norah (2020) also found that teachers like to try students centered learning and facilitation of the classroom by using gamification strategies and the tendency of teachers to use gamification strategies in learning and facilitation of the classroom at a high level because they are willing to face challenges in implementing gamification. Meanwhile, two study participants had different opinions and they thought that the conduct of the class depended on the number of students in the classroom. They also said they had difficulty controlling too many pupils while using mobile gamification. In addition, students with learning disabilities which consist of various categories cause them to face problems controlling students while using mobile gamification.

This is supported by Ding et al. (2018) proving that although the development of its technology and its great impact on learning and teaching, support and perpetuation of participation in gamification pedagogy is still challenging. This also shows that teachers are still poorly prepared in the use of mobile gamification methods that encourage more effective student engagement. This is in line with the findings of the Tasaratha and Maizatul Hayati (2022) study for the item "I can

conduct classes using mobile gamification during learning and facilitation of the classroom" which shows that teachers' readiness in conducting classes using mobile gamification is at a moderate level in primary schools in Kinta Selantan District. In addition, the findings of the Iberahim and Noor (2019) study stated that the gamification practices of primary school teachers in the state of Johor are at a moderate level even though the level of teacher bias is at a high level. Furthermore, the Emmanuel Fokides et al. (2019) study shows that trained teachers are reluctant to use digital games as an educational tool even though trained teachers seem to agree that such teaching methods have a positive effect on students.

5.6.Category of Special Education with Learning Disabilities

This gamification approach can help teachers plan activities that are appropriate to the level and capabilities of their students. One of the study participants thought that he did not apply mobile gamification to all categories of students with learning disabilities. This is because the background factors of the students are different and require special knowledge to overcome distruptive behavioral problems. The Suhartika and Rosadah study (2020) proves that special education teachers who are not special education options and special education options face problems in the practice of good which is to master the level of knowledge and skills of implementing learning and facilitation of the classroom in very low special education classes. They are less willing to identify various methods that are compatible with students with learning disabilities. This shows that teachers are faced with problems with the use of interesting methods such as mobile gamification in their learning and facilitation of the classroom. Two study participants thought that they did not use mobile gamification for all categories of students with learning difficulties as there were a few students who needed hands-on activities that did not require mobile gamification and they used it for students who were interested in taking part.

In addition, the study participants also thought that the application of mobile gamification depended on the acceptance of the pupil. They will use mobile gamification if pupils can show positive behavior. However, they will use other alternatives if they do not bring any changes. This is in line with the opinion of Gee and Gonsier-Gerdin (2018) who said the main challenge of special education teachers is to plan in learning to meet the curriculum that fits the level and cognitive abilities of each special student. This causes some special education teachers to experience emotional distress as they are burdened with various behavioral problems of special pupils and at the same time need to meet the needs and diversity of students with special needs (Hopman et al. 2018).

6. CONCLUSION

The findings of past studies prove that gamification is a new trend in today's education system with digital games that can be integrated into the learning of special needs students. The findings of past studies also discussed the gamification approach of having a positive impact on the cognitive, social, and emotional development of students with special needs as well as improving the academic achievement of students with special learning needs. In line with this, this study was conducted to explore teachers' readiness to use mobile gamification to overcome the problem of distruptive behavior of students with learning disabilities**.** The findings of this study show that

special education teachers still lack readiness for the more systematic and consistent use of mobile gamification in their learning and facilitation of the classroom. Conclusively, special education teachers should improve their skills in the application of mobile gamification for the smooth running of the learning and facilitation process and the success of students.

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