International Journal of Artificial Intelligence
p-ISSN: 2407-7275, e-ISSN: 2686-3251

Original Research Paper

MATHNECT: Mathematics Motion Based Learning for Primary School

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Article History
Received:
09.07.2022

Revised:
03.08.2022

Accepted:
13.08.2022

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Abstract: Courseware is now widely used in the process of learning and teaching, particularly at the primary school level and in mathematics classes. Students become less interested in learning mathematics because it involves abstract and complex concepts. Difficulty learning math is a profound and acknowledged difficulty among students throughout the generations. However, with today's technological advancements, this problem may be overcome. It can be used to enhance the current educational system by utilizing current technology. The main objective of this Mathnect is to develop a motion-based learning environment by utilizing Kinect technology as a learning aid to improve student concentration and attention in mathematics class. This study is developed using a methodology ADDIE. The game will be focusing on teaching simple mathematics number, which it will cover on basic numbers among primary school students. Thus, by implementing this study in primary schools, our educational environment can be improved to produce new adaptive learning methods. This Mathnect is beneficial for educators, students, and parents to be used in the classroom and can also be used for self-based learning. As a result, students will not be bored in the classroom at any time.

Keywords: Addie, Courseware, Educational Technology, Kinect, Teaching & Learning.

International Journal of Artificial Intelligence, vol. 9, no. 2, pp. 49-62, December 2022. **DOI: 10.36079/lamintang.ijai-0902.456**

1. Introduction

In this globalization era, new technology is improving at a rapid pace all over the world. The modern student is completely engrossed in some sort of electronic device. For youngsters who are too unmotivated to study at home or at school, this is one of many problems. When students are at home, they are sucked into their smartphones and video games, while in school, they are sucked into computers and the internet. Nowadays, people can interact with computers and other technology as they communicate with other people which ability to communicate with computers as they do with other humans. The technology has become so embedded into our daily lives that we use it to work, shop, communicate and even entertain our self.

Human-computer interaction (HCI) which do researches the design and the use of computer technology that is focus on the interfaces between people and computers. As we know, desktop applications, internet browsers, computer kiosk are much more for graphical user interfaces (GUI) and voice user interfaces (VUI). This has brought into interaction between humans and machines that focus on gesture recognition. Enabling natural human–computer interaction (HCI) will have a significant effect on computer use as computers become more popular in society. As a result, there has been an increase in interest in developing new methods and technologies for improving the human–computer digital gap. The ultimate goal of HCI is to get to a level where interactions are as natural as interactions between people and integrating gestures into HCI is an essential research area in that approach.

One of them is Kinect Sensor that involves the physical movement of the head, hands, arms, face and body. This input device for motion sensor and speech recognition that was produced by Microsoft. Kinect Sensor comes integrated with a red-green-camera, an infrared sensor, a four-array microphone and a three-axis sensor, availability to use with traditional computer of developers' tools for Kinect sensor application development. In recent years, Kinect has been applied in numerous field such as an alternative learning method. Tsai, et al. [1] focus on developing the Kinect sensor assisted game-based learning system with ARCS model to provide kinesthetic pedagogical practices for learning spatial skills, motivating students, and enhancing students' effectiveness. They conclude that the Kinect sensor- assisted learning system promotes the development of students' spatial visualization skills and encourages them to become active learners.

In primary school, students start learning to learn basic mathematics like recognizing numbers, comparing, sorting and basic operations. It is very common for every student to experience challenges and difficulties when learning to identify and remember numbers at their level. However, it is important for them at their early age to learn math and numeracy skills. For future academic achievement, math and numeracy abilities must be learned at an early age. Math and other topics, such as reading, are included. Students' ability to maintain discipline and focus in math class can be applied to other parts of life [2].

Traditional teaching methods are often teacher-directed and involve instructing students in a manner conducive to sitting and listening. However, it is widely maintained that the old system fails to provide students with necessary knowledge and that students lose knowledge after examinations. For example, the non-traditional mathematics teaching style is based on constructivism, which includes tools for making sense of the universe. The e-learning methodology is believed to be better aligned with non-traditional teaching approaches than with standard teaching approaches.

Nowadays, teachers recognize that not all students benefit from listening to a teacher lecture all day, and that not all lessons are best delivered directly. Direct instruction is effective for a small percentage of students and does not function well for a large variety. Indeed, the fact that students struggle with various aspects of

concentration and attention, and that this struggle is common throughout all levels of school, supports this view. When knowledge is learned with greater attention, it becomes more resistant to deterioration and forgetting [3]. Attention is needed to see the core of a problem, to comprehend it, and to produce ideas. Therefore, utilizing Kinect technology as an educational tool in the classroom has the potential to boost student attentiveness.

Besides, the growth of technologies in this century does not synchronize with the present educational learning process. Today's world is technologically advanced, and classes done in the presence of technology must be synchronized with the learning process in order to maintain students' attention and concentration during the class. Comparative studies on the impact of ICT in educational policies are helpful in illustrating the aspects that contribute to the effective implementation of

policies [4]. So, improving the way of learning by assisting students to learn using a new technology method may benefit education in the 21st century.

Students are equipped with cell phones, laptops with wireless internet, and, more than likely, other high-tech gadgets in this age of information evolution. It can be tiresome and dull to present to them the course material on a board or to guide them through a direct rehearsal process [5]. According to certain studies, digital game- based instruction facilitated students' learning more effectively than traditional instruction. Additionally, Sadler, Romine, Stuart, and Merle-Johnson discovered that digital game-based learning is more effective for typical students than it is for high achievers. Thus, a new interactive educational system may be able to solve some of the problems associated with old educational systems.

The aim of this study is to develop a motion-based learning for mathematics class in primary school. This study application will be the focus of primary school students who are aged in range of 7 to 9 years old. This application also can interact with one user at one time only. The purpose of this study is to improve current teaching and learning methods. This study will primarily focus on mathematics education for primary school children. The goal is to provide interactive tools for students to study while also allowing teachers to use the Kinect as a new teaching tool. This will provide a new educational experience for the students and teachers from both parties. The goal of this study is to provide a more interactive and engaging learning environment.

2. Literature Review

2.1. Mathematics in Education

In the last 40 years or so, integrating history of mathematics in mathematics education has emerged as a worldwide intensively studied area of new pedagogical practices and specific research activities. Mathematics is primarily involved with numbers and operations. It builds up from the fundamental zero to infinity, as well as from the operation of addition to the logical operation. All of these topics will be taught in schools and colleges in the future. Mathematics is a lifelong learning that we engage in on a daily basis. It will have an impact not only on our educational levels, but also on our daily lives. According to Schloglmann [6], found that encouraging children to talk about their observations, thoughts, and reasoning as part of mathematical will helps kids to develop not only their facility with the language of mathematics but also more general communication skills and an awareness of their own thinking.

Much of modern mathematics developed in reaction to practical issues in science and technology, sociology, and economics. The primary-school teacher, who is responsible for practically all parts of the curriculum, is well able to benefit on emerging opportunities. For instance, in the contexts of science and technology, history, geography, and society, to actively apply mathematical abilities and concepts in effective learning and to make explicit to students the mathematics being taught. A two-way street exists here: these different curriculum areas can also serve as meaningful and productive contexts for the teaching and reinforcement of mathematical concepts, skills, and principles in a variety of contexts. Teaching mathematics can provide opportunity for students to acquire critical intellectual abilities such as problem solving, logical and logical thinking, creative thinking, and verbally and in writing communication, among other things.

To advance in their understanding of mathematics, children must develop the cognitive development that is more difficult for them to build on their own. Teachers will assist students' intellectual development by encouraging them to think mathematically, investigate theories in domains, and clarify their thoughts when explaining. When children participate in classroom activities, mathematics is a natural extension of these kind of activities. This leads to the formation of problem-solving techniques, which is the next step. However, classifying problems as either "within mathematics" or in "practical contexts" is a waste of time and effort. At one contrary of the range are problems that are completely theoretical, consisting only of numbers and shapes, and in which the outcome has no practical value. For instance, how much orange squash should we purchase to ensure that each player in the interschool football event gets three drinks?

2.2. Interactive Multimedia Learning

In comparison to traditional methods of teaching, which may lack such interactivity, educators refer to interactive multimedia as the use of multimedia and Information Communication Technology (ICT) equipment to facilitate an effective dialogue between the instructor and the students. The

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advancement of technology has had a considerable impact on the evolution of teaching methods in all levels of education, from traditional face-to-face instruction to Computer-Based Learning (CBL) or E-learning systems. Multimedia has been included into a variety of instructional tools. Additionally, it is anticipated that similar tools will be used more extensively in education in the future. The use of interactive multimedia in the educational process is becoming more prevalent. Multimedia is critical in supporting students with their learning processes.

A new interactive multimedia educational system may be able to bring solutions to the challenges that have affected traditional educational systems in recent years [5], the research is divided into two stages. The initial phase will be to teach the first group using a traditional approach, while the second group will use the newly designed multimedia application to teach the first group's materials. Each group is subjected to a test. The first group will take a text- based quiz, while the second group will take a computer-based quiz. The two methodologies will be reversed in the second step of the research procedure.

To evaluate the educational impact of multimedia interactive educational technologies. The same instructional material that was used to teach basic math abilities has now been taught using both traditional and multimedia interactive educational techniques. To eliminate any biases in the study, classrooms were retained in their dynamic response with no rearrangement or reordering of the students in the four classes chosen for the experiments (two classes for each approach). At the conclusion of the educational session, each team is given a basic math exam.

According to a review of studies on the usefulness of multimedia in education, individuals who got teaching using computer-based multimedia instruction outperformed those who received training via traditional classroom lectures in terms of test scores. The findings of the Liu et al. study confirm previous findings indicating that media variety within e-learning educational systems has a significant effect on the user's intention to utilize such systems. E-learning systems that use text, audio, and video to communicate their materials have a greater perceived usefulness (PU) and concentration than those that use only text, text and audio, text and video, or audio and video.

2.3. Technology in Education

The use of IT among educators and students in teaching and learning is very important for current educational needs. Subrahmanyam (2000) stated in his research report that young children's regular use of technology in the home and community context may have an effect on their early literacy just as much as any other type of learning [7]. Shonia et.al (2020) assert that using technology in education can help children develop their fine motor skills, alphabet recognition, concept learning, numerical recognition, counting skills, and pre-mathematic knowledge, as well as their cognitive development and self-esteem or self-concept [8]. Interactive White Boards (IWB) is one of example of how technology is used in education.

There are numerous approaches or techniques that are used, including interactive multimedia software (courseware), the web, virtual reality, augmented reality, gamification, and automobile applications. Because interaction has long been seen as a critical feature of ICT, teachers are encouraged to utilize technology to facilitate effective learning. Teachers can create and use attractive resources that are compatible with an interactive whiteboard (IWB). Additionally, they can enhance their presentations with visual effects such as highlighting, color, drawing, and zooming, or they can import visual elements from other sources via the snapshot or copy-paste capability [9].

The interactive white board is one example of how new technology is being integrated into the educational system. According to surveys undertaken in England and Wales, a significant amount of money has been invested recently in IWB technology [10]. According to Wall, Higgins, and Smith (2007) interactive presentations assist teachers in directing students' attention to course information [11]. As well as assisting students in retaining what they have learned and comprehending concepts [12]. Additionally, Kennewell and Beauchamp (2003) found that the introduction of new technology had no effect on the pedagogical practices of many teachers that use IWBs [14]. Each school will receive an interactive white board and five networked personal computers. While research indicates that an optimal usage of IWBs may have a beneficial effect on learning and instruction, it is important to explore how teachers use IWBs in classroom settings.

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Figure 1. Interactive White Boards

The presence of this IWB will ensure that teachers' everyday routines become more excited about instructing students. The degree of interaction that IWBs can provide will vary depending on their intended usage and the teacher's ability to manage the environment [10]. Teachers that utilize interactive whiteboards can monitor their students' talents as well as the task's aim. According to Boumova the interaction of IWBs is contingent upon the teachers' and students' pace, engagement, motivation, participation, involvement, and collaboration [13].

2.4. Kinect Technology

Microsoft's Kinect is a motion-sensing input device for the Xbox360 video game platform [14]. It is a motion-sensing input device capable of capturing, tracking, and deciphering body motions, gestures, and spoken language. On November 4, 2010, Kinect Xbox 360 became available [15]. However, Kinect has been around for quite some time. Kinect is software that enables users to play and operate any software programme that supports Kinect without being tethered to any devices such as keyboards or controllers. Previously, Kinect was developed for the Xbox with the intent of providing entertainment and gaming. Then, following the introduction of open-source drivers, Kinect became compatible with all PCs, laptops, and software packages [16]. The Kinect application is accessible in three programming languages: C++, C#, and Visual Basic.NET. This has piqued public attention and created numerous chances for established fields to experiment with incorporating Kinect into their applications for the benefit of human beings.

Figure 2. Kinect Sensor Device

The sensor is a horizontally oriented device equipped with a colour camera, depth sensors, and a collection of microphones (Figure 3). The Kinect is a natural user interface (NUI) that detects body motion, gestures, spoken commands, and even facial recognition. This enables users to interface with their console or personal computer (PC) without the usage of hand-held devices. The initial sensor

provided an extremely accurate 3D (three-dimensional) image of its surroundings by studying infrared light beams into an area and monitoring the changes in the patterns. The device's primary hurdles were tracking users' bodies as they moved and recognizing the same person regardless of appearance changes or quick movements. All of this had to occur immediately and in real time.

Figure 3. Kinect Sensor XBOX 360

The first of a series of Kinect sensors, it was developed for the Xbox 360 platform and released. It is the fastest-selling gaming accessory in history, according to Guinness World Records. From November 4th, 2010 to January 3rd, 2011, an average of 133,333 units per day were sold over the first 60 days on sale. Kinect for Xbox 360 is capable of tracking players up to 4.5 meters away from the sensor but not objects closer than 0.8 meters.

2.5. Natural User Interface (NUI)

The most important part of building a gesture-based Human-Computer Interaction (HCI) system is tracking the user before any hand detection occurs. The skeletal tracking capabilities of Kinect, paired with the Natural User Interface (NUI) framework, enable the recognition of users and their actions. Technologies in the virtual environment have continuously improved during the last decade. After a succession of criticisms about virtual reality (VR) and augmented reality (AR) command languages, interfaces, hurdles, and limits, it's time to move on [17]. While VR enables individuals to interact with a simulated world, AR uses cognitive characteristics to augment the real world and humans. Only with the emergence of augmented reality will humans be able to interact as much as possible in a virtual environment.

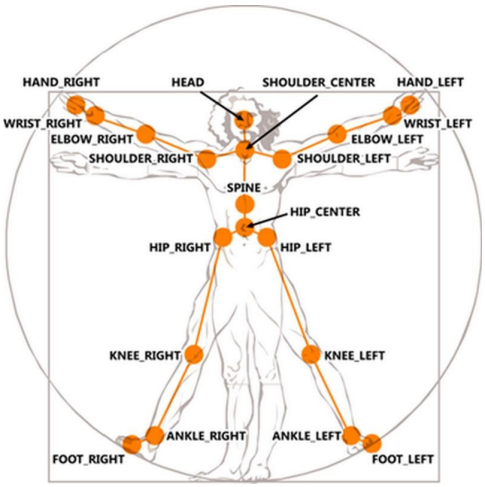

Figure 4. Tracked Joints Detected by Kinect Sensor

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Due to the interest in human interaction design and various limits in augmented reality, the next generation of user interfaces has been introduced; the Natural User Interface (NUI). NUI is a system for human-computer interaction that the user controls intuitively by actions that are consistent with natural, everyday human behaviour [18][19][20]. NUI is a communication system that makes advantage of human talents such as vision, touch, speech movements, and other higher cognitive capabilities. The objective is to simplify human-computer interface for the user by utilizing human interaction and body language that humans understand but machines do not. As a result, the user will have a simpler time learning and using this technology [21].

According to Microsoft, the infrared (IR) camera can identify up to six persons inside its range of vision but can monitor only two users in detail. It's worth noting that the Kinect sensor does not recognize humans; it merely transmits the depth image to the host device, which may be an Xbox or a computer. The host device's software incorporates functionality for decoding the data and recognizing elements in the image that have characteristic human forms. With skeleton tracking, an application may determine the location of twenty (20) skeletal joints on a standing user and 10 upper-body joints on a sitting user (shoulders, elbows, wrists, arms, and head). The numerous joints are depicted in Figure 4 in relation to the human body. After skeleton tracking is complete, the NUI library returns the position of each joint in 3D space in the form of X, Y, and Z coordinates represented in meters in the skeleton space coordinate system.

3. Methodology

3.1. Development Method

The ADDIE model is a basic technique that instructional designers and training developers have historically used to plan and produce effective learning experiences. Five phases exist. The phases of analysis, design, development, implementation, and evaluation provide a dynamic, flexible framework for developing successful training and performance support tools. While the ADDIE model is arguably the most widely used, it has several advantages and disadvantages that have resulted in several spin- offs and variants. However, many professional instructional designers adopt the design model when it comes to technology-based education. ADDIE has practically become almost a standard for professionally created, high-quality distance education programs, whether printed or online. Additionally, it is extensively employed in corporate e-learning and training.

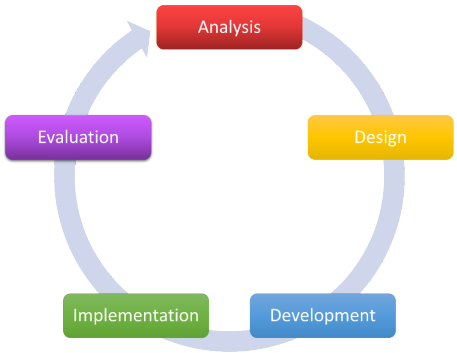

Figure 5. Phases in ADDIE Model

3.2. Research Design

The Quantitative Research Design method of data collection used in this study was a questionnaire. This method is applied to answer research questions since it can measure the subject of a study using both the provided user satisfaction questionnaires and the estimated population size.

3.3. Research Population and Sample

In this study, it was carried out at UPSI, Tanjong Malim, Perak; that involved 20 of respondents from a variety of courses at UPSI. In general, the venue picked is suitable for the target audience and the objectives of this study, and its use can provide an answer to all research questions. The choice of

study venues is also influenced by the cost, time, and expertise of the researcher. Random sampling was used as the sample technique.

3.4. Research Instruments

In this research, a questionnaire is used as the instrument to help achieve the previously stated objectives. Additionally, by referencing online resources, the use of secondary data was also used (internet). This research is quantitative and uses a questionnaire as a quantitative or descriptive research tool. The questionnaire driven to the collection of quantitative data. The System Usability Scale (SUS) has been used in this research which is quick instrument for gauging usability. It is a 10-item questionnaire with five response alternatives for responders, ranging from strongly agree to strongly disagree. Google Forms has been used to create a series of questionnaires to gather data.

Respondents are prompted to enter information by checking the appropriate boxes or filling in the blank spaces. The goal is for the chosen respondents to be able to respond to the supplied things based on their personal experience while testing this application. This questionnaire is divided into Section A: Personal Information, and Section B: Software Usage which some criteria has been asked based on its usability of the software.

3.5. Research Analysis

The acquiring of research findings results from the study of questionnaire items in research analysis. Results are shown as pie charts and bar charts, with percentages (percent) used for evaluation. Google Form, Draw IO, Microsoft Word, Microsoft Excel, and Microsoft Power Point were the applications used to conduct this research.

3.6. Research Procedures

The research using a questionnaire, the Google Form, was used to construct the questionnaire, in which the questions asked about the usability of the software. After finishing with the Google Form, the link for the questionnaire was generated and passed among UPSI students and teachers. The link can only be accessed within one week to obtain all the data from respondents. Then, after the data was collected from the link, the data was analysed from the Google Form questionnaire from both Section A and Section B. Finally, the data analysed was transformed into pie charts and bar charts.

4. Finding and Discussion

4.1. Interface

This research focus on the importance of Kinect motion embedded sensors in assisting primary school students in learning numbers and basic mathematics at this era. The homepage display shows the title of the application, which is Mathnect. The main menu diagram consists of sub-headings, namely start, guide, setting and exit as shown in Figure 6. While, main menu display shows the selection year. The selection option given for year 1, year 2 and year 3 as shown in Figure 7.

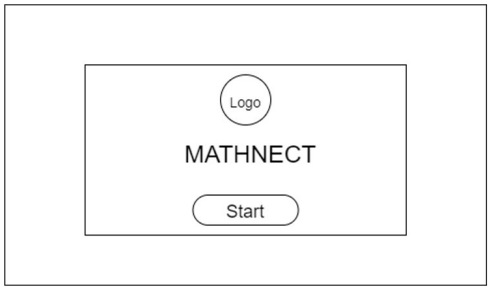

Figure 6. MATHNECT: Homepage

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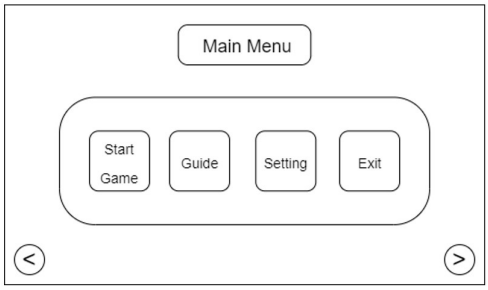

Figure 7. MATHNECT: Main Menu

The topics main menu for the game will be asked the user to select which topics they want to choose as shown in Figure 8.

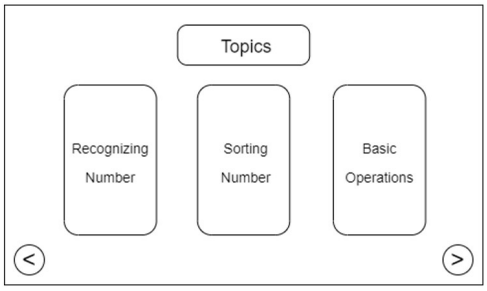

Figure 8. MATHNECT: Topics

- Recognizing Number
  In this section, it will be asking students if they recognize or not the number displayed in the question area. A user will be asked to choose one of the three answer options provided as shown in Figure 9.
- Sorting Number
  In this section, it will be asking students to sorting the number based on object display and collect the proper one as shown in Figure 10.
- Basic Operations
  In this section, it will be asking students if they understand the basic operations of number in the question area. A user will be asked to choose one of the four answer options provided as shown in Figure 11.

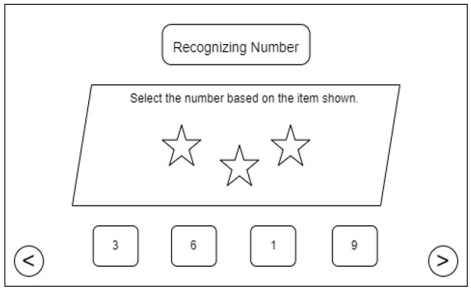

Figure 9. MATHNECT: Recognizing Number

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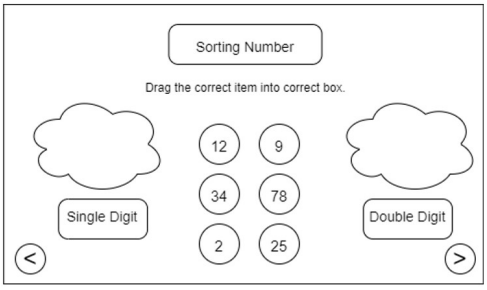

Figure 10. MATHNECT: Sorting Number

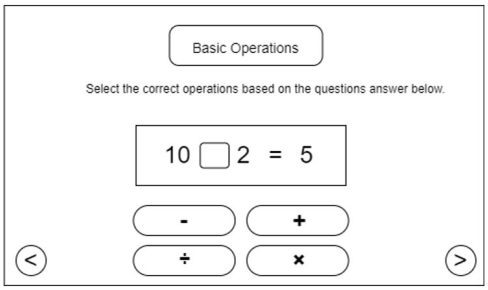

Figure 11. MATHNECT: Basic Operations

4.2. Analysis of the Research Findings: Personal Information

The analysis of the research findings was collected based on the software evaluation via a questionnaire issued to a total of 20 persons. The responders include UPSI students and teachers from various courses at UPSI. The aspects described in the respondent's profile information are as follows gender, age, race and school.

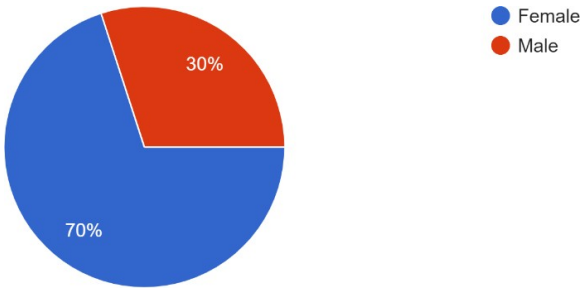

Figure 12. Gender

According to the pie chart in Figure 12, majority of respondents are women that are 70% or 14 women from 20 responded, with men accounting for only 40% or 6 men from 20 responded. This is an imbalance in the sample selection when compared to a randomly selected sample, but it has no bearing on the outcomes of this research. Furthermore, in comparison to women, the number of male samples who replied is quite low.

According to the graph bar in Figure 13, 40% or 8 respondents are between the ages of 20 and 22 years old, 45% or 9 respondents are between the ages of 23 and 25 years old, and 15% or 3 respondents are between the ages of 28 and 48 years old. Thus, the ages of all responses range widely.

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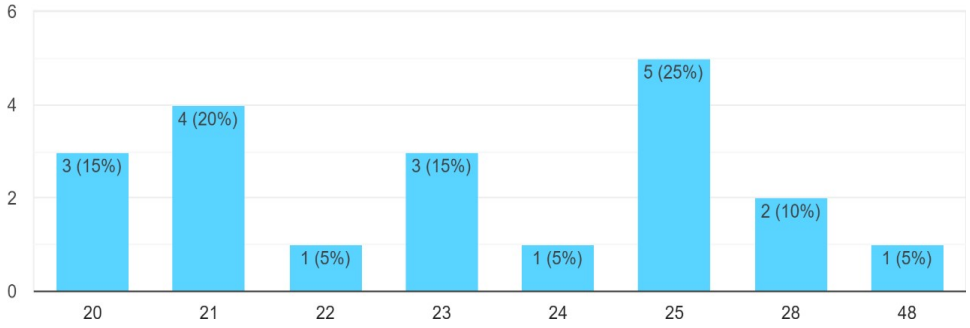

Figure 13. Age

According to the graph bar in Figure 14, 10% or 2 respondents from 20 respondents are Chinese, and same goes to 10% or 2 respondents from 20 respondents are India, 65% or 13 respondents from 20 respondents are Malay which is the most majority here, and 15% or 3 respondents from 20 respondents are from another race. Thus, the race of all responses has a different ethnics background.

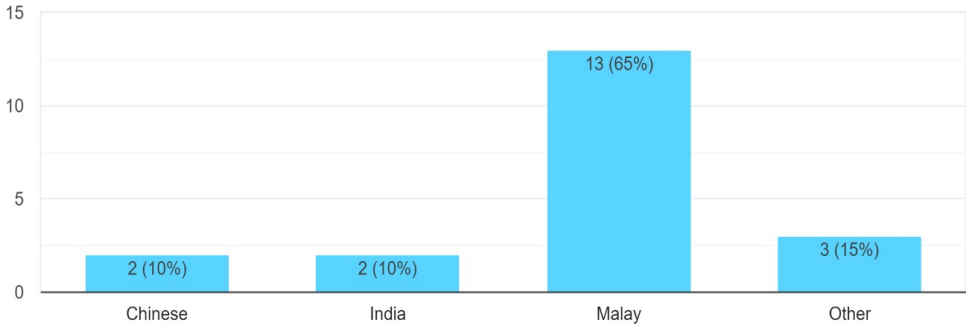

Figure 14. Race

According to the pie chart in Figure 15, 10% or 2 respondents from 20 respondents are from FBK Faculty, 30% or 6 respondents from 20 respondents are from FSM Faculty, 5% or 1 respondent from 20 respondents if from FPE Faculty, 45% or 9 respondents from 20 respondents which is the most majority here are from FSKIK Faculty, 5% or 1 respondent from 20 respondents is from SMK Kabong, and another 5% or 1 respondent from 20 respondents is from IPG Kampus Rajang. Thus, of all responses come from various faculty and school.

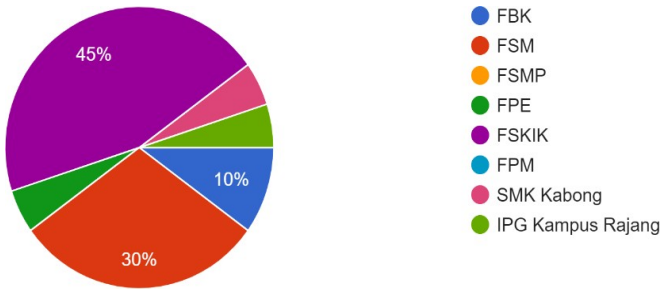

Figure 15. School

4.3. Discussion

As explained at the beginning of this research, this study was conducted for improve current teaching and learning methods. This Mathnect software that has been developed will be the learning aid in classroom to help students' concentration and attentions. With the use of this leaning aid, it would give benefits also to our education system that is up to date with current technology. This is because, not all students can learn the mathematics subject quick and fast like other students, besides there will always be some of them left behind. Thus, this thing should no longer happened in our future generations and with this learning aid in the classroom, the students can study and improve together with their other classmate.

The technology world has changed dramatically in recent years. With more people becoming interested in digital media, it is critical for teachers to employ the most up- to-date tools in their job to engage students. To interest students in learning, one must be imaginative and provide fresh concepts so that students are excited about what they are studying. This new technology teaching methods could help the student learn more about Kinect Technology which is synchronized with their learning process as well as helping them in studying. Therefore, by using this software, allows students to have fun while learning, which helps them stay motivated and interested about their studies.

When it comes to students' active participation in class activities, environmental conditions have a significant impact. Because environmental elements may serve as the foundation for students' active engagement in class, mathematics teachers must ensure that all classroom environmental factors are beneficial to all types of students in a mathematics class. The use of Mathnect application in the mathematic classroom would enhance the teaching and learning environment. This is because Mathnect using Kinect Technology and it is integrated with interactive courseware all along in one software. Consequently, it is important to have an active environment in the classroom because it affects the concentration and maintain attention in the teaching and learning.

Today's vast array of educational technology provides students with a lot of options from which to select the best ones for their educational needs. Mathnect is one of them, and the software includes interactive educational courseware. This software assists users in developing the necessary skills and knowledge to better their mathematics subject.

Homework and exercises always be the things that teacher give to students before ending their class, but that is traditional way. Nowadays, most teacher just pass the link to the worksheet and give due date to the student to complete and even can do some discussion in any online meeting platform such as Zoom or Google Meet. Compared to this Mathnect software, it does not have much different as the teacher can ask their students to complete any topics in the software which can be monitored by their parents. Thus, this software can be used to do their self-learning at home where parents can see their children progress.

As we know, mathematics subject needs a full concentration especially when it comes to how to be calculating it in the correct way. As a student, both mental and physical need to be ready in the class and this also includes for mathematics subject. In this Mathnect software, the user must use their hand movement as well as their mental in order to answer the question given. Students can improve their mathematics performance and physical health by using these tools, which assist them improve their learning and cognitive skills. Therefore, there is huge advantages of employing instructional technology can include bettering learners' mental and physical wellness.

5. Conclusion

In overall, this Mathnect software has been developed successfully in conjunction with the plans that have been set. However, there is still considerable potential for improvement, and new ideas can be developed to increase the quality of the product developed for future usage. The use of Mathnect, student could improve some of the important topics which this software helped teachers by the exercise and quiz in the application. Mathnect, which combines text, graphics, animations, music, and video, is critical for capturing students' attention during teaching and learning sessions.

Furthermore, computer-based tools can make learning more enjoyable and engaging for pupils while also assisting them in rapidly and easily grasping a subject. In this chapter, the importance of this software as a learning aid in the mathematics classroom for teaching and learning give big benefits to both students and teachers also parents. Besides, all the objective has been achieved and some of recommendations for improvement suggestions as well is also presented to further improve the quality of this software in the future.

Here are some recommendations to improve the Mathnect software. First, upgrade the software with new advance technology such as Augmented Reality (AR) to make it more interesting and fun. Next, include the scoreboard which recorded all the score from first page until finish the game. This Mathnect application would be good if the software has some brief notes on specific topic. More, it would be good if more topics added in the software.

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