


**THE IMPLEMENTATIONS OF TECHNOLOGY IN SPECIAL EDUCATION CLASSROOMS  
BASED PROJECT**

**Mohd Norazmi Nordin<sup>A</sup>, Izzat Fadli Hamdan<sup>B</sup>, Farhanah Mohd Noor<sup>C</sup>, Sariah Ali<sup>D</sup>,  
Mohamad Maulana Magiman<sup>E</sup>, Nazeema Mohamed Yusoff<sup>F</sup>, Nur Ilyana Ismarau  
Tajuddin<sup>G</sup>**



ARTICLE INFO	ABSTRACT
<p><b>Article history:</b></p> <p>Received 31 January 2023</p> <p>Accepted 28 April 2023</p>	<p><b>Purpose:</b> This qualitative study was conducted to explore the factors that influence the use of technology in special education classrooms.</p> <p><b>Theoretical Framework:</b> Technology is evolving so fast, that we can't afford to keep up with it. These technological developments give a new leaf to various aspects of life.</p> <p><b>Methodology:</b> Respondents were interviewed in three separate sessions and recorded before the thematic analysis was conducted.</p> <p><b>Findings:</b> This study shows benefit from the emergence of various gadgets that can make teaching and learning more interesting. Nevertheless, there are still teachers who are unable to use technology efficiently in the classroom, especially for special education. This condition is caused by several factors.</p> <p><b>Implications:</b> The findings of this study are expected to provide an initial overview for subsequent researchers to conduct further studies.</p> <p><b>Value:</b> Among those affected by this rapid development is the field of education. It can be seen that education is gradually moving according to a fresher and more exciting trend with the application of technology.</p>
<p><b>Keywords:</b></p> <p>Technology Usage; Technology Applications; Special Education; Classrooms.</p> <div data-bbox="172 1048 480 1294">  </div>	<p>Doi: <a href="https://doi.org/10.26668/businessreview/2023.v8i5.1444">https://doi.org/10.26668/businessreview/2023.v8i5.1444</a></p>

**AS IMPLEMENTAÇÕES DE TECNOLOGIA EM SALAS DE AULA DE EDUCAÇÃO ESPECIAL  
COM BASE NO PROJETO**

**RESUMO**

**Objetivo:** Este estudo qualitativo foi realizado para explorar os fatores que influenciam o uso da tecnologia em salas de aula de educação especial.

<sup>A</sup> PhD, Faculty of Education, Universiti Kebangsaan Malaysia, Bangi, Selangor, Malaysia.

E-mail: [norazmi@ukm.edu.my](mailto:norazmi@ukm.edu.my) Orcid: <https://orcid.org/0000-0003-3021-3608>

<sup>B</sup> Master in Education, Faculty of Educational Studies, Universiti Putra Malaysia, Serdang, Selangor, Malaysia.

E-mail: [gs61765@student.upm.edu.my](mailto:gs61765@student.upm.edu.my)

<sup>C</sup> PhD in Economic Sciences, Education, University of Glasgow, Scotland, United Kingdom.

E-mail: [cjguarezr@hotmail.com](mailto:cjguarezr@hotmail.com) Orcid: <https://orcid.org/0009-0001-3825-0967>

<sup>D</sup> PhD, Department of Postgraduate Programme, Universiti Teknologi Malaysia, Skudai, Johor, Malaysia.

E-mail: [sariah@utm.ny](mailto:sariah@utm.ny)

<sup>E</sup> PhD, Faculty of Humanities, Management And Science, Universiti Putra Malaysia, Bintulu, Sarawak, Malaysia.

E-mail: [mdmaulana@upm.edu.my](mailto:mdmaulana@upm.edu.my) Orcid: <http://orcid.org/0000-0003-4634-9323>

<sup>F</sup> PhD, Universiti Pendidikan Sultan Idris, Muallim, Perak, Malaysia. Email: [yusofnazeema@gamil.com](mailto:yusofnazeema@gamil.com)

<sup>G</sup> PhD, Tahmidi Centre, Universiti Sains Islam Malaysia, Nilai, Negeri Sembilan, Malaysia.

E-mail: [nur\\_ilyana@usim.edu.my](mailto:nur_ilyana@usim.edu.my) Orcid: <http://orcid.org/0000-0002-5982-8983>

**Estrutura teórica:** A tecnologia está evoluindo tão rapidamente que não podemos nos dar ao luxo de acompanhá-la. Esses desenvolvimentos tecnológicos dão uma nova perspectiva a vários aspectos da vida.

**Metodologia:** Os entrevistados foram entrevistados em três sessões separadas e gravadas antes da realização da análise temática.

**Conclusões:** Este estudo mostra os benefícios do surgimento de vários aparelhos que podem tornar o ensino e o aprendizado mais interessantes. No entanto, ainda há professores que não conseguem usar a tecnologia de forma eficiente em sala de aula, principalmente na educação especial. Essa condição é causada por vários fatores.

**Implicações:** Espera-se que os resultados deste estudo forneçam uma visão geral inicial para que pesquisadores posteriores realizem outros estudos.

**Valor:** Entre os afetados por esse rápido desenvolvimento está o campo da educação. Pode-se observar que a educação está se movendo gradualmente de acordo com uma tendência mais fresca e empolgante com a aplicação da tecnologia.

**Palavras-chave:** Uso da Tecnologia, Aplicativos de Tecnologia, Educação Especial, Salas de Aula.

## LA APLICACIÓN DE LA TECNOLOGÍA EN LAS AULAS DE EDUCACIÓN ESPECIAL BASADA EN PROYECTOS

### RESUMEN

**Propósito:** Este estudio cualitativo se llevó a cabo para explorar los factores que influyen en el uso de la tecnología en las aulas de educación especial.

**Marco teórico:** La tecnología evoluciona tan rápidamente que no podemos permitirnos seguirle el ritmo. Estos avances tecnológicos dan una nueva perspectiva a diversos aspectos de la vida.

**Metodología:** Se entrevistó a los entrevistados en tres sesiones distintas y se les grabó antes de realizar el análisis temático.

**Conclusiones:** Este estudio muestra los beneficios de la aparición de diversos dispositivos que pueden hacer más interesantes la enseñanza y el aprendizaje. Sin embargo, todavía hay profesores que no pueden utilizar la tecnología de forma eficiente en el aula, especialmente en educación especial. Esta situación se debe a varios factores.

**Implicaciones:** Se espera que los resultados de este estudio proporcionen una visión general inicial para que investigadores posteriores realicen más estudios.

**Valor:** Entre los afectados por este rápido desarrollo se encuentra el campo de la educación. Se puede observar que la educación se está moviendo gradualmente según una tendencia más fresca y emocionante con la aplicación de la tecnología.

**Palabras clave:** Uso de la Tecnología, Aplicaciones Tecnológicas, Educación Especial, Aulas.

### INTRODUCTION

Studies on the use of technology are very widespread nowadays. Many researchers have conducted studies related to the integration of technology in the classroom. According to A. Guzman & M. Nussbaum (2009: 453) in their statement that is, The process of integrating technology into classroom work has emerged as a significant focus of study in educational research. Interest in this trend has been motivated by the growing number of technology projects implemented in schools. In this section, the researcher describes the methods of analyzing the data that have been collected in the previous section. The reviewer has analyzed the data obtained through interview transcripts and also research on selected documents. This method of analysis is important for the researcher to obtain the findings of the study formed through appropriate methods of interpretation. In addition, in this section, the researcher also describes the method to achieve the validity of a study finding through an inter-rater reliability test

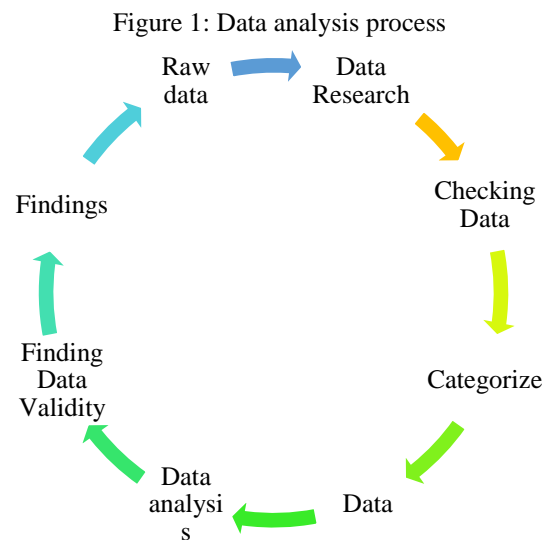
conducted. To make it easier for the reader to understand this process, the researcher has divided the description into several chapters that contain a detailed description of each category discussed.

This study was conducted to identify several factors that influence the use of technology in the classroom. It is emphasized that the things to pay attention to are the reasons for the selection of technology before a teacher to decide to use technology in teaching while in the classroom. In addition, the researcher also set the purpose of the effect of the use of technology in teaching and methods of integrating the technology in teaching. Along with the rapid development of technology, the influence of the use of this technology began to spread to schools and generally to the classroom (Abdul Jalil et al., 2021; Mohd Noh et al., 2021; Mustafa et al., 2021; Roszi et al., 2021; al., 2021; Tumisah et al., 2021). Pupils are also exposed to various forms of technology in their daily lives. Therefore, it is highly desirable if this technology is used also during teaching and learning so that the channels of its use become more meaningful, not just for entertainment alone (Irma et al., 2021; Suzana et al., 2021; Rohanida et al., 2021; Nazrah et al., 2021; Shahrulliza et al., 2021). Fulfilling that purpose, the researcher has evaluated question related to the study as follows:

- i. What factors influence the choice of type of technology in classroom teaching?

## **METHODOLOGY**

Data analysis in qualitative research methods involves experience as well as selected data formed from non-numerical material. According to Syahrul (2005), the data collected is not in the form of numbers, qualitative research is very rich in descriptions. The following is the data analysis process.



Through interviews, researchers analyzed the data through the transcripts that have been produced. To facilitate the researcher to determine the results of the study findings, the resulting transcript should be coded. According to David (2006) inductive coding begins with the closing reading of the text and consideration of the various meanings inherent in the text which are then labeled into one category. This process is called coding where each answer given by the respondent is named with their respective code according to category and theme.

The results of this analysis will establish the development of categories into models or frameworks that load raw data and convey key themes and processes (David, 2006). The coding process is very important to obtain the scope of data acquisition from the interview transcripts that have been produced. Through this transcript earlier, the researcher interprets the data to obtain results. All word data obtained through interviews or data from observations need to be described and summarized (Anne & Donna, 2009). According to Anne & Donna (2009) again, this analysis may require researchers to obtain relationships between the various themes that have been identified. Therefore, the researcher has combined the themes obtained to obtain the results of the analysis.

## RESULT AND DISCUSSION

### R1-Respondent 1

R1: is basic. Basics. Ok ok. Like this. There are many things to consider during the election. First of all. We ourselves need to make sure we know how to use the technology. Don't be very sophisticated. Hehe. What I don't want to bring, I don't use it. Like the game before, I have to know first how to use it. Otherwise, the teaching will be disrupted when I try to use it

myself. Both levels of students. We look at the level of our students. If you make a powerpoint with slides that do not need many words, this will interfere with students' interest. Place relevant only. if you want to put a picture, put only the relevant picture. later if there are too many, students cannot focus.

R1: all sorts of normal. Importantly, This needs to be addressed. Deaf students have hearing problems, deaf students like pictures, videos. Take into account this factor. Kind of pictures, videos we need a lot. These students are now advanced. More advanced than her teacher. Haha. He is good at using computers, tabs, so we use tabs, computers to teach him something. Yes, right? That's an easy way to get their attention. Some more?

R1: um .. another factor. Ok. Fikirkan ye. the student's interest. They love to explore. So when we share something new like this gadget, they will explore. We take advantage of that, to teach them about something. Like today, we use it to learn Mathematics. Apart from that, take into account the size of the class. Class size is very important. Usually 5 slaves, 4 people like that. If there aren't many people in my class, there are only 6 people, we display the LCD. If you want to use the pound tab, it's hard too. Very small. What's on the computer, show it in front of it.

## **R2-Respondent 2**

R2: Ok. We start from ancient times. You remember we used to have OHP? There is a light. Which we project on the screen. That is also technology. New time comes out first, it is the greatest technology and up to date. Not anymore. We have changed. We already have the new VLE Frog introduced by the government. E book. Just want to google. Hehe. Then, each school has its own computer lab. Can access directly. Want to find out what information we can get in a short time. Now students are supplied with notebooks by the government. Thats technology. Enough access. The only problem is that some students may be ready and some are not yet ready to go through learning using technology.

R2: Good. Today I taught physical education. There are some skills to send the ball and run. I have used the video to show the correct way in doing the technique of sending the ball and running. From there students can clearly see the correct way to do the delivery. Deaf students, you understand. Everything we have to show in front of our eyes. Can't talk, only through gestures. I just want to do a demonstration. But this student prefers videos, pictures. So I use this method. They like it and they understand.

R2: I choose to use technology like video in my teaching because it makes it easier for me. I just need to search the internet, download and show it to my students. Save time. Understand that nowadays everything needs to be fast. Easy. Fast. I want to save time. In addition, students can also know exactly about something. When watching a video, we continue to get what we see in the video. Distance learning can happen. Students can also learn what their peers in other countries learn. For example, we watch the video in another country, another country. Peer students learn that thing. We can learn the same thing. We don't need to explain at length. Students can look and follow. That is the factor that made me choose this technology.

R2: The use of technology is influenced by various reasons. If seen in my class earlier, it has to do with students' understanding. I chose to show the video because my students needed it so. As I mentioned earlier, my students are deaf students, their way of learning is what they see. That is what they will do and they will easily understand. After all, the development of my students related to this technology is actually ok. They already know about tabs, laptops. When I use this approach, they prefer it. Instead of me drawing on a whiteboard, I'd rather show a video

R2: I choose to use technology in my teaching because it makes it easier for me. I just need to search the internet, download and show it to my students. Save time. Understand that nowadays everything needs to be fast. I want to save time. Pupils can also know exactly about something. Distance learning can happen. Students can also learn what their peers in other countries learn.

### **R3-Respondent 3**

R3: emm. Glad to have the answer. Google play is free. Interactive games like these language games are very interesting and exciting. If the answer is correct, then praise is given. If they are wrong, they will not continue to be blamed, they will be motivated. This makes the teaching more interesting. In addition, students will also be easy to understand and interested in continuing learning. Not like before. If it's wrong, keep it wrong. Now wrongly motivated. They are more interested in continuing from one level to another. Low, medium and high levels. I chose to use a tablet because of the size of the class and my student is only one. No need to use LCD. We can be one by one with students. Students feel we are always close to them. So it's appropriate that I use this tablet. One more thing, this technology as the researcher mentioned earlier is a current demand. Saving. If we do not use technology, it is as if we are left behind. After all it is not difficult to access.

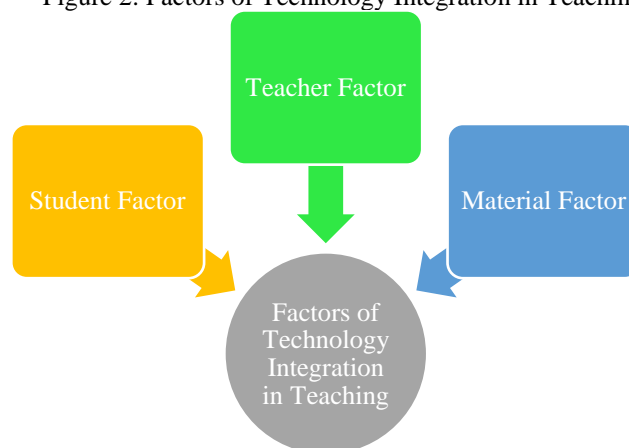
Table 1: Theme Analysis

	RESPONDENT 1	RESPONDENT 2	RESPONDENT 3
<b>FACTORS AFFECTING TECHNOLOGY CHOICE</b>	<ul style="list-style-type: none"> <li>• we know how to use technology</li> <li>• Deaf students like pictures, videos</li> <li>• They love to explore</li> <li>• Class size</li> </ul>	<ul style="list-style-type: none"> <li>• fast time.</li> <li>• Adequate access.</li> <li>• students can see clearly</li> <li>• facilitate</li> <li>• Save time</li> <li>• student understanding.</li> <li>• my student's technology -related development</li> </ul>	<ul style="list-style-type: none"> <li>• it's free.</li> <li>• very interesting and exciting</li> <li>• current claims.</li> </ul>

Through the table above, it can be stated that the factors that influence the choice of technology in the classroom is because it simplifies teachers, saves time, free applications, facilitates student understanding and attracts students. Through this analysis it can be observed that there are some similar answers and ideas among the respondents. This can help the researcher to state the validity of the data and the connectivity between the data obtained. This method of data validity will be described in the next section.

Once the researcher has finished analyzing all the data obtained and validating all the sources, the researcher can state the findings obtained. These findings can answer the research questions that have been set at the beginning of the writing of this study. In Figure 2 is a summary of the findings of this study. The researcher summarizes these factors into 3 parts, namely student factors, teacher factors and material factors. This finding is a conclusion that can be made based on several factors that have been studied. The researcher summarizes the findings as shown in the figure below.

Figure 2: Factors of Technology Integration in Teaching



These three parts of the factor play an important role in influencing the selection of teachers in integrating the use of technology during teaching in the classroom. Among the most



important factors in this determination is the student factor because learning objectives are ultimately determined by student achievement (Mohd Arafat et al., 2021; Sumaiyah et al., 2021; Hifzan et al., 2021; Shahrul et al., 2021; Helme et al., 2021). Each part of those factors includes several other factors. Here are the factors for each of these sections.

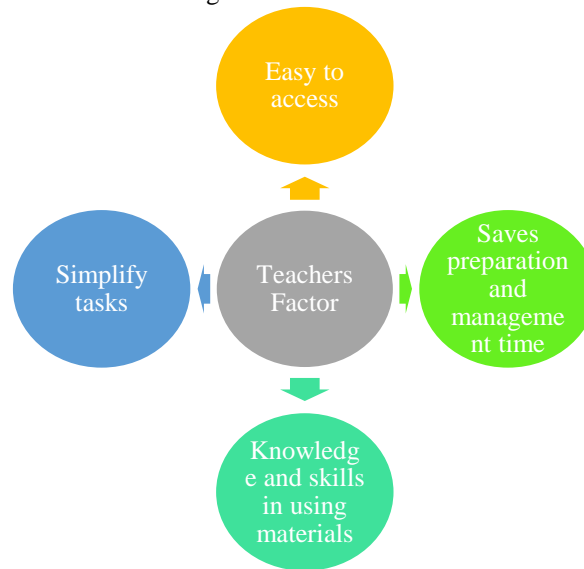
Table 2: Technology Selection Factors in the Classroom

<b>Factors</b>	<b>Notes</b>
<b>Teachers</b>	i. Knowledge and skills in using materials ii. Easy to access iii. Saves preparation and management time iv. Simplify tasks
<b>Students</b>	i. Motivate students ii. Attract interest iii. Facilitate understanding iv. Extensive exposure v. Existing skills
<b>Materials</b>	i. Free application ii. Easy access iii. Available at school iv. Attract v. The latest trends

Based on Table 2, we can see several factors for each section that influence the choice of technology in the classroom. Teacher factors include 4 things, namely knowledge and skills in using materials, easy to access, saving time in preparation and management as well as facilitating teachers' tasks. This is also related to the study conducted by Lynette (2008: 63) which stated that "Effective integration of technology is the result of many factors, but the most important factor is the teachers 'competence and ability to shape instructional technology activities to meet students' needs". The student factor consists of 5 things, namely motivating students, attracting interest, facilitating understanding, wide exposure and their existing skills. As for the material factor, it also consists of 5 things, namely free applications, easy to access, available at school, interesting and according to the latest trends. All these findings can be presented as below.

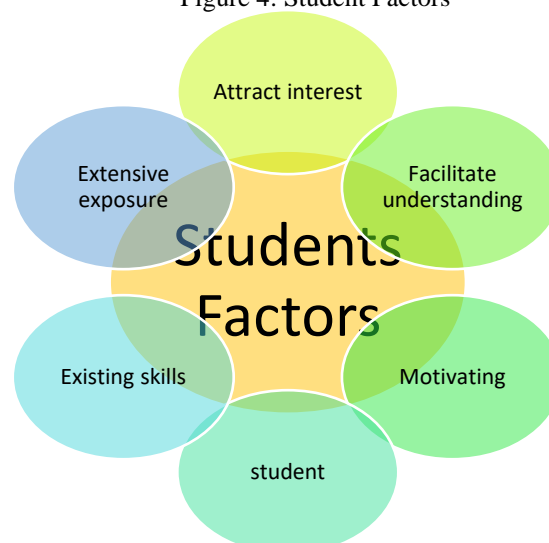


Figure 3: Teacher Factors



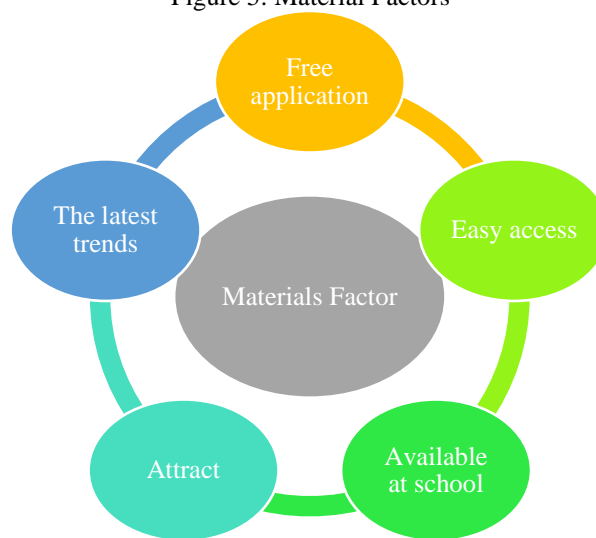
Among the things considered in the teacher factor is that it saves teachers time in preparing the materials because it is already available, as in Figure 3. Teachers only need to use a piece of software or videos via the internet. In addition, easy access is also a motivator for teachers to use technology (Farah et al., 2021; Syahrul et al., 2021; Quah et al., 2021; Ahmad Syarifuddin et al., 2021; Jumiah et al., 2021 ). Only an internet connection is required to download a video or software. The use of technology also facilitates the task of teachers. Teachers no longer need to tire themselves out by providing existing teaching materials. Teachers' skills in the use of technology are also a factor to the integration of technology in teaching (Mohd Ali et al., 2021; Parimala et al., 2021; Siti Jamilah et al., 2021; Nor Fauziyana et al., 2021; Noel et al., 2021).

Figure 4: Student Factors



Based on the findings of the study in figure 4 above, it is concluded that the student factor is the main factor in addition to the material factor where it involves 5 things. The integration of technology in first -grade classroom teaching is due to the extensive exposure to students (Badaruddin et al., 2021; Abdul Rasid et al., 2021). Students are accustomed to the use of technology such as gadgets at home. In addition, technology can also attract students' interest in learning. This in turn can facilitate students' understanding. Technology was also chosen because it can motivate students to learn (Ahmad Shafarin et al., 2021; Junaidah et al., 2021; Farah Adibah et al., 2021; Ahmad Shakani et al., 2021; Muhamad Amin et al., 2021).

Figure 5: Material Factors



## CONCLUSION

The technological material itself is also a factor in the integration of technology in the classroom, as in Figure 5. In addition to being the latest trend and being followed around the world in all aspects, the material is also easily accessible (Santibuana et al., 2021; Nor Diana et al. al., 2021; Zarina et al., 2021; Khairul et al., 2021; Rohani et al., 2021). Materials such as videos and photos are easy to obtain. These materials are also interesting as is the software in tablets as well as labtops. Almost all schools in Malaysia have good broadband links. It is already available and students and teachers only need to use it. The most important factor is that it is available for free on the internet.

## REFERENCES

A. Guzman & M. Nussbaum (2009). *Teaching competencies for technology integration in the classroom*. *Journal of Computer Assisted Learning* (2009), 25, 453–469.

Abdul Jalil Toha Tohara, Shamila Mohamed Shuhidan, Farrah Diana Saiful Bahry, Mohd Norazmi bin Nordin (2021). Exploring Digital Literacy Strategies for Students with Special Educational Needs in the Digital Age. *Turkish Journal of Computer and Mathematics Education* Vol.12 No.9 (2021), 3345-3358.

Abdul Rasid Bin Abdul Razzaq, Mohd Norazmi Bin Nordin, Mohamad Zaid Bin Mustafa, Badaruddin Bin Ibrahim (2021). Questionnaire for Special Education Leadership: A Pilot Study. *LINGUISTICA ANTVERPIENSIA*, 2021 Issue-1: 2587-2614

Ahmad Shafarin Bin Shafie, Siti Nur Kamariah Binti Rubani, Aini Nazura Binti Paimin, Navaratnam Vejaratnam, Mohd Norazmi bin Nordin (2021). Elements of Safety In Job Satisfaction Of Special Education Teachers In Malaysia. *Turkish Journal of Computer and Mathematics Education* Vol.12 No.11 (2021), 5274-5278

Ahmad Shakani bin Abdullah, Iklima Husna Binti Abdul Rahim, Mohammad Halim bin Jeinie, Muhammad Shakir Bin Zulkafli, Mohd Norazmi bin Nordin (2021). Leadership, Task Load And Job Satisfaction: A Review Of Special Education Teachers Perspective. *Turkish Journal of Computer and Mathematics Education* Vol.12 No.11 (2021), 5300-5306

Ahmad Syarifuddin Che Abd Aziz, Tumisah binti Akim, Abdul Halim Bin Ruseh, Sarina Binti Mail, Mohd Norazmi bin Nordin (2021). Elements of Facility In Job Satisfaction Of Special Education Teachers In Malaysia. *Turkish Journal of Computer and Mathematics Education* Vol.12 No.11 (2021), 5239-5243

Ahmad Ynus Kasim dan AB Halim Tamuri (2010). Pengetahuan Pedagogikal Kandungan ( PPK) Pengajaran Akidah : Kajian Kes Guru Cemerlang Pendidikan Islam. *Journal of Islamic and Arabic Education* 2(2), 2010 : 13-30.

Allison, Peter, Jonathan. (2007). Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*, Volume 19, Number 6: pp. 349–357.

Araujo, V. de A. A. de, & Scafuto, I. C. (2021). What do we know about barriers to knowledge transfer? A bibliometric study on internal stickiness. *International Journal of Professional Business Review*, 6(1), e212. <https://doi.org/10.26668/businessreview/2021.v6i1.212>

Badaruddin Bin Ibrahim, Mohd Norazmi Bin Nordin, Mohamad Zaid Bin Mustafa Abdul Rasid Bin Abdul Razzaq (2021). Special Education Need The True Leadership: The Review. *Turkish Journal of Physiotherapy and Rehabilitation*; 32(3): 1622-1628.

Baxter, P., & Jack, S. (2008). Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers. *The Qualitative Report*, 13(4), 544-559.

Christine, Immy. (2011). *Qualitative Research Methods in Public Relations and Marketing Communications Second edition*. New York: Routledge.

Clara, Sarah, Barbara, Elizabeth, Shirley. (2005). Consensual Qualitative Research: An Update. *Journal of Counseling Psychology*, Vol. 52, No. 2 (April 2005): 196-205.

David R. (2006). A General Inductive Approach for Analyzing Qualitative Evaluation Data. *American Journal of Evaluation*. 2006 27: 237.

Donald E. (2005). Language and Meaning: Data Collection in Qualitative Research. *Journal of Counseling Psychology*. 2005, Vol. 52, No. 2, 137–145.

Elizabeth, Leslie, Kelly. (2006). Qualitative Data Analysis for Health Services Research: Developing Taxonomy, Themes, and Theory. *Health Serv Res*. 2007 Aug; 42(4): 1758–1772.

Ellen, Robert, Janette, Marlin, Virginia (2005). Qualitative Studies In Special Education. *Council for Exceptional Children*, Vol. 71, No.2, pp. 195-207.

Farah Adibah binti Ibrahim, Biamin Ahmad, Rehad binti Ismail, Harlina binti Ismail, Mohd Norazmi bin Nordin (2021). Resource Elements In The Construct Of Special Education Teacher Workload In Malaysia. *Turkish Journal of Computer and Mathematics Education* Vol.12 No.11 (2021), 5289-5293

Farah Azaliney Binti Mohd Amin, Noorsuraya Mohd Mokhtar, Farah Adibah binti Ibrahim, Nishaalni, Mohd Norazmi bin Nordin (2021). A Review Of The Job Satisfaction Theory For Special Education Perspective. *Turkish Journal of Computer and Mathematics Education* Vol.12 No.11 (2021), 5224-5228

Groff, J., & Mouza, C. (2008). A framework for addressing challenges to classroom technology use. *AACE Journal*, 16(1), 21-46.

Helme bin Heli, Senin M.S, Yusmi bin Mohd Yunus, Kavita Vellu, Andrew Jason George, Mohd Norazmi bin Nordin (2021). A Review Of The Educational Leaderships Theory For Special Education Perspective. *Turkish Journal of Computer and Mathematics Education* Vol.12 No.11 (2021), 5217-5223

Helme Heli, Senin M.S, Ekmil Krisnawati Erlen Joni, Juereanor Binti Mat Jusoh, Mohd Norazmi bin Nordin (2021). Elements Of Experience In The Leadership Construct Of Special Education Head Teachers In Malaysia. *Turkish Journal of Computer and Mathematics Education* Vol.12 No.11 (2021), 5279-5283

Hifzan Binti Mat Hussin, Nor Mazlina Binti Mohamad, Syed Nurulakla Syed Abdullah, Ida Rahayu Mahat, Mohd Norazmi bin Nordin (2021). Why Special Education Is Always In Our Hearts? *Turkish Journal of Computer and Mathematics Education* Vol.12 No.11 (2021), 5202-5210

Ian Dey (2005). *Qualitative data analysis A user-friendly guide for social scientists*. Routledge: London.

Irma Shayana Bte Samaden, Firkhan Ali Bin Hamid Ali, Nor Shadira Jamaluddin, Mazidah binti Ali, Mohd Norazmi bin Nordin (2021). Elements of Attitude In The Leadership Construct Of Special Education Head Teachers In Malaysia. *Turkish Journal of Computer and Mathematics Education* Vol.12 No.11 (2021), 5151-5156

Irma Shayana Bte Samaden, Irfah Najihah, Shaliza Alwi, Rabiatal Munirah, Mohd Adli bin Mohd Yusof, Mohd Norazmi bin Nordin (2021). Time Element In The Construct Of Special Education Teacher Workload In Malaysia. *Turkish Journal of Computer and Mathematics Education* Vol.12 No.11 (2021), 5141-5145

Irma Shayana Bte Samaden, Senin M.S, Noor Lina binti Mohd Yusuf, Biamin Ahmad, Mohd Norazmi bin Nordin (2021). A Pilot Study on The Influence Of Headmasters Leadership On Workload And Job Satisfaction Of Special Education Teachers In Johor, Malaysia. *Turkish Journal of Computer and Mathematics Education* Vol.12 No.11 (2021), 5157-5171

Jumiah binti Mustapa, Sarina Binti Mohd Yassin, Fauziah binti Ani, Parimala A/P Palanisamy, Mohd Norazmi bin Nordin (2021). Physiological Elements In Job Satisfaction Of Special Education Teachers In Malaysia. *Turkish Journal of Computer and Mathematics Education* Vol.12 No.11 (2021), 5244-5248

Junaidah Yusof, Farah Adibah binti Ibrahim, Senin M.S, Hilmiah Binti Haji Hassan, Mohd Norazmi bin Nordin (2021). Elements of Work Environment In The Construct Of Special Education Teacher Workload In Malaysia. *Turkish Journal of Computer and Mathematics Education* Vol.12 No.11 (2021), 5284-5288

Kathleen Debevec and Mei-Yau Shih, Vishal Kashyap (2006). Learning Strategies and Performance In a Technology Integrated Classroom. *Journal of Research on Technology in Education*. 38(3) : 293-307.

Khairul Hanim Pazim, Roslinah Mahmud, Noor Fzlinda Fabeil, Juliana Langgat, Mohd Norazmi bin Nordin (2021). Special Education Teachers Job Satisfaction In Malaysia: A Review. *Turkish Journal of Computer and Mathematics Education* Vol.12 No.11 (2021), 5329-5332

Kuldip Kaur Karam Singh (2015). *HMEF5103 Qualitative Research Methodology*. Kuala Lumpur : Open University Malaysia (OUM).

Lara, J. E., Esteves, C. M. A., Cremonez, V. G., & Ribeiro, R. M. (2021). The Quintuple Helix Modeling Technological Innovation: Characterization and the Status of Business Accelerators in a Metropolitan Region. *International Journal of Professional Business Review*, 6(1), e0221. <https://doi.org/10.26668/businessreview/2021.v6i1.221>

Lynette Molstad Gorder (2008). A Study of Teacher Perceptions of Instructional Technology Integration in the Classroom. *The Delta Pi Epsilon Journal* No. 2, 2008, 63-76.

Matthew Ladew (2010). *Evaluation of Inter-Rater Reliability*. Dilayari pada 28 Julai 2015 di : <http://www.clarkson.edu/honors/research/papers/Ladew-Matthew-102010.pdf>

Mohd Ali Masyhum bin Mohd Nor, Ahmad Faqih Ibrahim, Syahrul Anuar Ali, Mohd Fairuz Affendy bin Md Nordin, Mohd Norazmi bin Nordin (2021). Elements of Leadership Style In The Leadership Construct Of Special Education Headmasters In Malaysia. *Turkish Journal of Computer and Mathematics Education* Vol.12 No.11 (2021), 5249-5253

Mohd Ali Masyhum, Ophelia, Masliah Musa, Daraini Oyot, Mohd Norazmi bin Nordin (2021). Headmasters Leadership On Task Load And Job Satisfaction Of Special Education Teachers In Malaysia. *Turkish Journal of Computer and Mathematics Education* Vol.12 No.11 (2021), 5294-5299

Mohd Arafat Bin Jaafar, Muhammad Talhah Ajmain@Jima'ain, Mazita binti Ahmad Subaker, Kavita Doraisamy, Mohd Norazmi bin Nordin (2021). Special Education Teachers Task Load In Malaysia: A Review. *Turkish Journal of Computer and Mathematics Education* Vol.12 No.11 (2021), 5333-5337

Mohd Arafat Bin Jaafar, Noor Azlin Binti Abdullah, Mohd Sabri Bin Jamaludin, Muhamad Amin bin Haji Ab Ghani, Mohd Norazmi bin Nordin (2021). Unique Attitude? The Concept Of Special Education Leadership. *Turkish Journal of Computer and Mathematics Education* Vol.12 No.11 (2021), 5192-5196

Mohd Noh, A. N., Razzaq, A. R. A., Mustafa, M. Z., Nordin, M. N., Ibrahim, B. (2021). Sustainable Community Based Ecotourism Development. *PalArch's Journal of Archaeology of Egypt / Egyptology*, 17(9), 5049-5061.

Mohd Noh, A. N., Razzaq, A. R. A., Mustafa, M. Z., Nordin, M. N., Ibrahim, B. (2021). Elements of Community Capacity Building (CCB) For Cbet Development. *PalArch's Journal of Archaeology of Egypt / Egyptology*, 17(9), 4970-4981.

Mohd Noh, A. N., Razzaq, A. R. A., Mustafa, M. Z., Nordin, M. N., Ibrahim, B. (2021). Future Community-Based Ecotourism (CBET) Development. *PalArch's Journal of Archaeology of Egypt / Egyptology*, 17(9), 4991-5005.

Mohd Norazmi Bin Nordin, Mohamad Zaid Bin Mustafa, Badaruddin Bin Ibrahim, Abdul Rasid Bin Abdul Razzaq, Nor Fauziyana Binti Mosbiran (2021). Special Education Unique Leadership Style: The Concept. *LINGUISTICA ANTVERPIENSIA*, 2021 Issue-1: 2244-2261

Muhamad Amin bin Haji Ab Ghani, Abidah Aqilah Binti Mohd Noor, Zulfadli Bin Mohd Saad, Mohd Mazhan Tamyis, Mohd Norazmi bin Nordin (2021). Improving The Writing Skills Of Jawi Connection Letters Of Students With Learning Disabilities Using The Finger Step. *Turkish Journal of Computer and Mathematics Education Vol.12 No.11 (2021)*, 5307-5312

Mustafa Kamal Amat Misra, Nurhanisah Senin, Abdull Rahman Mahmood, Jaffary Awang, Mohd Norazmi bin Nordin (2021). Analysis On Ashācirah And Ibādhiyah On The Attributes Of God. *Turkish Journal of Computer and Mathematics Education Vol.12 No.10 (2021)*, 7661-7673

Nazrah Binti Jamaludin, Kway Eng Hock, Elia Binti Md Zain, Norkhafizah binti Yussuf, Mohd Norazmi bin Nordin (2021). This Special Education Is Unique For Teachers, Students, Parents, Leaders And Organizations. *Turkish Journal of Computer and Mathematics Education Vol.12 No.11 (2021)*, 5179-5183

Noel Jimbai Balang, Bong Lie Chien, Mimilia Binti Gabriel, NorHamidah Binti Ibrahim, Mohd Norazmi bin Nordin (2021). Elements of Teacher Readiness In The Construct Of Special Education Teacher Workload In Malaysia. *Turkish Journal of Computer and Mathematics Education Vol.12 No.11 (2021)*, 5269-5273

Nor Diana Mohd Idris, Junaidah Yusof, Fazli Abdul-Hamid, Muhamad Helmy Sabtu, Mohd Norazmi bin Nordin (2021). Formation of Special Education Leadership Study Questionnaire Set That Influences The Task Load And Job Satisfaction Of Special Education Teachers In Malaysia. *Turkish Journal of Computer and Mathematics Education Vol.12 No.11 (2021)*, 5319-5323

Nor Fauziyana binti Mosbiran, Ahmad Faqih Ibrahim, Muhammad Yasin Omar Mokhtar, Muhamad Amin bin Haji Ab Ghani, Mohd Norazmi bin Nordin (2021). Elements Of Welfare In Job Satisfaction Of Special Education Teachers In Malaysia. *Turkish Journal of Computer and Mathematics Education Vol.12 No.11 (2021)*, 5264-5268

Nor Fauziyana Binti Mosbiran, Mohamad Zaid Bin Mustafa, Badaruddin Bin Ibrahim, Abdul Rasid Bin Abdul Razzaq, Mohd Norazmi Bin Nordin (2021). Teacher Competencies To Provide Effective Individual Education Plan For Students With Special Needs Hearing Problems: An Early Review. *Turkish Journal of Physiotherapy and Rehabilitation*; 32(3): 1617-1621.

Parimala A/P Palanisamy, Santibuana Binti Abd Rahman, Siti Azura Binti Bahadin, Helvinder Kaur a/p Balbir Singh, Mohd Norazmi bin Nordin (2021). Relationship Elements In Job Satisfaction Of



Special Education Teachers In Malaysia. Turkish Journal of Computer and Mathematics Education Vol.12 No.11 (2021), 5254-5258

Quah Wei Boon, Mohd Fairuz Bin Mat Yusoff, Nurhanisah Binti Hadigunawan, Fatin Nabilah Wahid, Mohd Norazmi bin Nordin (2021). A Review Of The Management Theory For Special Education Task Load Perspective. Turkish Journal of Computer and Mathematics Education Vol.12 No.11 (2021), 5234-5238

Rohani Binti Marasan, Andrew Lim Ming Yew, Dg. Norizah Ag. Kiflee @ Dzulkifli, Colonius Atang, Mohd Norazmi bin Nordin (2021). A Principal's Leadership Excellence Though Disposition of Attributes. Turkish Journal of Computer and Mathematics Education Vol.12 No.11 (2021), 5360-5371

Rohanida binti Daud, Shazali Johari, Fazli Abdul-Hamid, Syahrul N. Junaini, Mohd Norazmi bin Nordin (2021). Face and Content Validity For The Special Education Leadership (Integration) Questionnaire In Malaysia. Turkish Journal of Computer and Mathematics Education Vol.12 No.11 (2021), 5172-5178

Rossen Din , Mazalah Ahmad, M.Faisal Kz, Norhaslinda Mohamad Sidek, Aidah Abdul Karim, Nur Ayu Johar, Kamaruzaman Jusoff, Mohamad Shanudin Zakaria, Khairul Anwar Mastor & Siti Rahayah Ariffin. (2009). Kesahan Dan Kebolehppercayaan Soal Selidik Gaya E-Pembelajaran (Else) Versi 8.1 Menggunakan Model Pengukuran Rasch. *Jurnal Pengukuran Kualiti dan Analisis*. 5(2) 2009, 15-27.

Roszi Naszariah Nasni Naseri, Maryam Mohd Esa, Norlela Abas, Nurul Zamratul Asyikin Ahmad, Rafidah Abd Azis, Mohd Norazmi bin Nordin (2021). An Overview Of Online Purchase Intention Of Halal Cosmetic Product: A Perspective From Malaysia. Turkish Journal of Computer and Mathematics Education Vol.12 No.10 (2021), 7674-7681

Roszi Naszariah Nasni Naseri, Nurul Zamratul Asyikin Ahmad, Sharina Shariff, Harniyati Hussin, Mohd Norazmi bin Nordin (2021). Issues And Challenges Of Online Shoppingactivities On The Impact Of Corona Pandemic :A Study On Malaysia Retail Industry. Turkish Journal of Computer and Mathematics Education Vol.12 No.10 (2021), 7682-7686

Roy P. Pargas, Andrew R. Levin , and Joshua Austin. (2005). *Work In Progress - Providing Interactivity in a Technology-Rich Classroom*. Indianapolis: Frontiers in Education Conference.

S, S.M., Yusoff, M.Y.M., Rahmat, R., Yassin, Y.N.H.M., Nordin, M.N. (2021). Asset Tokenization: A Simulation Study. *Review of International Geographical Education Online*, 2021, 11(7), pp. 1219–1224

Santibuana Binti Abd Rahman, Helvinder Kaur a/p Balbir Singh, Albert Feisal@Muhd Feisal bin Ismail, Salsuhaida binti Sulaiman, Mohd Norazmi bin Nordin (2021). Formation Of Special Education Leadership Study Interview Protocol That Affects The Task Load And Job Satisfaction Of Special Education Teachers In Malaysia. Turkish Journal of Computer and Mathematics Education Vol.12 No.11 (2021), 5313-5318

Shahrul Hapizah Musa, Elia Binti Md Zain, Muhd Zulkifli Ismail, Hifzan Binti Mat Hussin, Mohd Norazmi bin Nordin (2021). Something Important For Special Education In Malaysia. Turkish Journal of Computer and Mathematics Education Vol.12 No.11 (2021), 5211-5216

Shahrulliza binti Saharudin, Siti Azura Binti Bahadin, Helvinder Kaur a/p Balbir Singh, Shazali Johari, Mohd Norazmi bin Nordin (2021). The Single Predictor Of The Influence Of Headmasters



Leadership On Special Education Teachers Job Satisfaction In Malaysia. *Turkish Journal of Computer and Mathematics Education* Vol.12 No.11 (2021), 5184-5191

Siti Jamilah Samsuddin, Mazidah binti Ali, Ashari Ismail, Mohd Saifulkhair Omar, Mohd Norazmi bin Nordin (2021). Elements Of Work Type In The Construct Of Special Education Teacher Workload In Malaysia. *Turkish Journal of Computer and Mathematics Education* Vol.12 No.11 (2021), 5259-5263

Sonya, Jennifer L. (2009). The Space Between: On Being an Insider-Outsider in Qualitative Research. *IJQM International Journal of Qualitative Research*, 2009, 8(1).

Sumaiyah Mohd Zaid, Nurhanani Che Rameli, Aidah Alias, Mohammad Fahmi Abdul Hamid, Mohd Norazmi bin Nordin (2021). Virtual Learning Of Deaf Students: We Miss Pupils, We Hate Covid19. *Turkish Journal of Computer and Mathematics Education* Vol.12 No.11 (2021), 5197-5201

Suzana Basaruddin, Muhamad Helmy Sabtu, Azizan Arshad, Irma Shayana Bte Samaden, Mohd Norazmi bin Nordin (2021). Elements Of Knowledge In The Leadership Construct Of Special Education Head Teachers In Malaysia. *Turkish Journal of Computer and Mathematics Education* Vol.12 No.11 (2021), 5146-5150

Syahrul Anuar Ali, Khadijah binti Mustapha, Jalila J., Sofia Binti Elias, Mohd Norazmi bin Nordin (2021). Financial Elements In Job Satisfaction Of Special Education Teachers In Malaysia. *Turkish Journal of Computer and Mathematics Education* Vol.12 No.11 (2021), 5229-5233

Syahrul Budiman (2005). Pengolahan Dan Analisis Datadalam Penelitian Kualitatif. Dilayari pada 28 Julai 2015 di <http://www.academia.edu/5562212>.

Tumisah binti Akim, Siti Azura Binti Bahadin, Helvinder Kaur a/p Balbir Singh, Irma Shayana Bte Samaden, Mohd Norazmi bin Nordin (2021). Elements Of Qualification In The Leadership Construct Of Special Education Headmasters In Malaysia. *Turkish Journal of Computer and Mathematics Education* Vol.12 No.11 (2021), 5135-5140

Turner, D. W. (2010). Qualitative Interview Design: A Practical Guide for Novice Investigators. *The Qualitative Report*, 15(3),754-760

Zarina Osman, Syahrul Anuar Ali, Salwati binti Su@Hassan, Kothai malar Nadaraja, Mohd Norazmi bin Nordin (2021). Special Education Leadership In Malaysia: A Review. *Turkish Journal of Computer and Mathematics Education* Vol.12 No.11 (2021), 5324-5328