

The Use of Android Game to Improve Impaired Hearing Students Vocabulary Mastery

Indah Cantika Putri¹, Damri², Engkizar³, Zainal Asril⁴, Efendi⁵

^{1,2,3}Universitas Negeri Padang, Indonesia

⁴Universitas Islam Negeri Imam Bonjol, Padang, Indonesia

⁵Sekolah Tinggi Keguruan dan Ilmu Pendidikan Pesisir Selatan, Indonesia

E-mail: engkizar@fip.unp.ac.id

Abstract: This study aims to analyze the use of *android game* to improve *impaired hearing* students vocabulary mastery at one of Special Schools in Padang City, Indonesia. This study used quantitative research method with Single Subject Research (SRR) approach, the research data was taken from one impaired hearing student through seventeen direct lessons using *android game*. All the data that the authors obtained were analyzed descriptively using visual graph analysis tools, this method of analysis is one of the techniques for analyzing Single Subject Research. The results of the study showed that the use of *Android game* as a learning media significantly improved the *impaired hearing* student vocabulary mastery. This increase in ability is proved by the initial test scores of the participants at a score of 10, 10, 20, 20, 20, this score is the score before learning by using *android game*. Furthermore, after the author did seven times direct treatment, it was found that the students' scores increased to 40, 50, 70, 80, 70, 70, 70, even students were able to obtain final self-evaluation scores with a score of 50, 70, 100, 100, 100. The results of this study proved that the use of *android game* has succeeded in increasing the vocabulary mastery of *impaired hearing* students

Keywords: media, android game, vocabulary, students, impaired hearing

INTRODUCTION

In the context of education, learning media is one aspect that cannot be separated from learning (Engkizar et al. 2018; Zafirah et al. 2018; Syafril et al. 2018; Aini et al. 2019). In general, the media aims to make it easier for students to master the material that will be taught by the teacher in order to achieve learning objectives. According to Sudjipto (2011) media is a tool that serves to clarify and assist the learning process so that the goals of learning can be achieved. While Sudjana (2005) explained that the media provides messages in the form of information used in teaching subject matter. In addition, the media is also referred to as introductory or intermediary tool for someone in delivering subject matter (Muhson, 2010).

Using media in the teaching and learning process has many benefits, one of which is to arouse students' interest in learning so that there will be an interaction between teachers and students and the media used as an intermediary (Agusti et al. 2018). In addition, the media, among others, serve to clarify information, save space, time and energy, increase the enthusiasm of students, train the aid and motor skills of students (Susilana, 2008; Afifah & Chamidah, 2019; Agusti et al., 2018). This means that the use of media in learning by teachers is a necessity, especially with the current development of technology, teachers have many

choices at the same time can work together to create innovative and fun learning, in this context, of course, the media is one of the teacher's instruments to achieve this (Kasmar et al. 2019).

Related to the creativity and competence of a teacher in using learning media in the current technological era, as explained by Murniyetti et al. (2016), Yusnita et al (2018), Kasmaret al. (2019) teachers must strive to continue to improve themselves, especially in the aspects of pedagogic and professional competence, so that they are able to be creative in designing learning that has an impact on increasing the interest and enthusiasm of students in learning. In other words, the competence that teachers have in designing learning will have an impact on the resulting learning outcomes.

Impaired hearing students are individuals who lose their ability to hear partially or completely due to impaired function of their hearing aid, which causes language development to be hampered (Jambor, & Elliott, 2005). With this condition, *impaired hearing* students have problems with the lack of auditive information which has an impact on the lack of vocabulary mastery (Marschark, et al. 2009). In fact, the use of learning media is very necessary because these students rely on their visual aid which are characteristics of *impaired hearing* students in receiving information (Desak, Putu & Sumarjaya,

2014). According to Anjarsari & Yulianti (2017) the limitations of *impaired hearing* students in receiving auditive information cause cognitive development to be hampered, the occurrence of language disabilities which allows the cause of reading difficulty at the beginning Saputri (2013), lack of vocabulary, Filina (2013), speech delayor lack of vocabulary Yunus (2014), whereas the ability to speak language and speech in everyday life is needed.

Further research results Qoyyimah & Adi (2017) found *impaired hearing* students have problems in learning vocabulary. Likewise in research conducted by Winarsih (2018) who found *impaired hearing* learners had problems in learning to read the beginning. Both of these studies use *android game*as an effort to solve problems found in special schools (SLB).

To solve this problem, aid in the form of learning media are needed that can help clarify the material so that it is better understood (Asmaranti & Andayani, 2018). According to previous researchdone by Utami and Anwar (2018), Handarini & Hasan (2019), Sudarto & Rofiah (2019) it is stated that the learning media is proven to be able to improve the academic achievement of students. Media selection must be adjusted to the characteristics and needs of students, including the selection of media for students with special needs, especially students with hearing impairments or hearing impairments. In addition, learning media greatly affects the results of students, especially in aspects of Indonesian subjects (Anggraini & Wahyuno, 2015; Febrician & Damri, 2019).

Referring to the problems faced by *impaired hearing* students in learning as described above, a solution from the teacher is needed so that these limitations can be overcome in the learning process. According to the author, the use of media for*impaired hearing* students is very meaningful in learning, especially in learning to control the body parts. In the context of this research, the media that the writer uses is an android-based gamin which there is material for the vocabulary of body parts according to the special school curriculum.

To ensure the problems faced by *impaired hearing* students, the author has made preliminary observations at one of the Special Schools (SLB) in Padang City. The results of the observation found that an *impaired hearing* student had difficulty in learning Indonesian, especially in the subject of vocabulary mastery about body parts. To overcome this problem, learning media is needed to increase the learning interest of*impaired hearing* students which can facilitate the performance of teachers in teaching vocabulary for body parts that is tailored to the characteristics of each student.

One of the efforts that teachers can make in overcoming the learning problems of impaired hearing students is to use android gameto help students with

hearing impairment needs. The reason the author uses android game as an alternative solution to the problems found is that in playing a game which requires deep thinking and strategies to solve problems via android / computer, which includes audio, animation and images as well as combining attractive colors so as to increase the attention of students to learn using media. In the android game, students are actively involved when using it and take part in making decisions about the course of a game. Not only used as a learning medium.

Research on the use of instructional media for*impaired hearing* students has been widely studied by previous researchers such as Utami and Anwar (2018), Handarini & Hasan (2019), Sudarto & Rofiah (2019), Anggraini & Wahyuno (2015), Febrician & Damri (2019), the previous research only focused on how impaired hearing tudents learned the initial reading material. However, in this study, the authors focused more on teaching material about the vocabulary of the body parts, this is the fundamental difference between this study and previous research. This means that this material is important because it aims to increase the knowledge of impaired hearing students

METHOD

This research was conducted in Wacana Asih Special School (SLB) in Padang City, Indonesia. To obtain research data, the author used quantitative research method withSingle Subject Research (SRR) approach. According to Ana (2016) Single Subject Research (SSR) is an experimental study with single data analysis using one, two or more subjects. The research data was taken from one of the *impaired hearing* students through seventeen direct lessons using android game learning media. All data that the authors obtained were analyzed descriptively using visual graph analysis tools. Visual graphical analysis data (visual analysis of graphic data) is processed by entering data into graphs, then the data is analyzed based on the data that has been obtained in the initial ability, direct learning and final ability, this method of analysis is one of the techniques for analyze single subject research.

RESULT

As the author explained earlier that this study aims to improve the vocabulary skills of *impaired hearing* students towards body parts. In this study the authors used Android game as a learning medium. Based on the results of data analysis, the overall learning media used in this study have succeeded in improving the vocabulary mastery of*impaired hearing* students in learning Indonesian on the vocabulary aspects of the body parts.

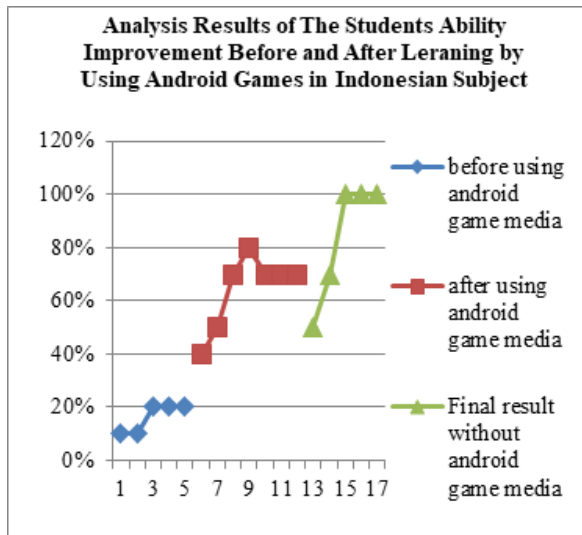


Figure 1 Analysis Results of Students Ability Improvement of Students Before and after learning by Using Android Game in Indonesian Subject

Table 1. Analysis results in conditions before treatment, after using Android Game media and after the media was stopped

No	Component	Condi-tions Before Treatment	After Using Android Media Game	After the me-dia was stopped
1	Long Con-dition	5	7	5
2	Estimation of Direc-tional Trend	(+)	(+)	(+)
3	Trend of Stability	0% Unstable	57.14% Unstable	0% Unstable
4	Trends in the Data Footprint	(+)	(+)	(+)
5	Stability Level and Range	Variable 10–20	Variable 40–70	Variable 50–100
6	Level of Change	20 - 10 = 10	70 - 40 = 30	100 - 50 = 50

In the following, the authors will explain three aspects of the research results which include, first, state of the students ‘scores before learning by using android, second, the results of the analysis of students’ scores after the author of the learning intervention uses android game media, The third result is the analysis of students’ scores without using android game. In general, the description of the three data that the author means can be seen in Figure 1.

First The state of the students scores before learning by using android game media, in this condition there were five meetings, the researcher only saw the students’ initial abilities without giving intervention or direct learning to the research subject so that a maximum score of 20% was obtained. Second, the results of the analysis of students’ scores after the author did learning intervention by using android game media. In this condition, there were seven meetings using android game media so that the maximum achievement score was 70%. This research is supported by previous research such as research conducted by Winarsih (2018) The research found that by using educational video game media based on Android, the reading ability of *impaired hearing* children can be improved. The three final results of the analysis of students’ scores without using android game media. In this condition, there are five meetings held so that the final result is the maximum achievement score of 100%.

Based on the results of the analysis above, it was found that the students’ abilities on the vocabulary material of body parts increased significantly in scores. Conditions analysis in this study is to analyze changes in the data of a condition in each activity. The components of the visual analysis in conditions consist of the length of the condition, the estimation of the directional trend, the trend of stability, the trend of the data trail, the level of change in stability and range, and the level of change.

First, the results of the calculation of activities before using android game media showed a positive score increase with a stability level of 0% meaning it was not stable. The change level has a range of 10-20 with a difference of +10. Second, the results of the calculation after the intervention using the Android game showed a significant increase in the score with a stability level of 57.14% meaning it was unstable. The stability level ranges from 40-70 with a difference of +30. Third, the results of the calculation of the students’ final ability after not using Android game media showed a significant increase in the score with a stability level of 0% which means it was unstable. The level of change has a range of 50-100 with a difference of 50. In general, the description of the components in question can be seen in table 1.

Analysis between conditions in this study by comparing one condition with another. The components of the visual analysis between conditions consisted of the number of variables that were changed, changes in trend direction and their effects, changes in stability trends, changes in levels and the percentage of overlap. First, the results of the analysis between conditions before treatment to conditions after intervention using android game media, found that changes in stability showed unstable to unstable with an overlap percentage of 0%.

Table 2. Analysis Results Between Conditions Before Treatment to Conditions After Intervention Using Android Game Media and Conditions After Using Media *Android Game* to the Condition of Students' Ability after the Media is Stopped

Condition	A2 / B / A1
Number of variables changed	1
Changes in trend direction and their effects	(+) (+) (+)
Change in trend stability	Unstable to variables
Change level	
Level of change in conditions B / A1	40% - 20% = 20%
The level of change in conditions B / A2	100% - 50% = 50%
Overlapping percentage	
At baseline conditions (A1) with intervention conditions (B)	0%
At baseline conditions (A2) with intervention conditions (B)	0%

Second, the results of the analysis after using android game media to the condition of students' abilities after the media were stopped, it was found that changes in stability showed unstable to unstable with an overlap percentage of 0%. In general, the description of the components in question can be seen in table 2.

DISCUSSION

Media in the teaching and learning process has many benefits, one of which is to generate interest in students' learning so that interactions occur between teachers and students and the media used as an intermediary and creates the same views or perceptions so that mistakes and misunderstandings occur. Understand the subject matter (Susilana, 2008). The use of learning media is very necessary, especially in learning the vocabulary mastery of body parts for *impaired hearing* students. In line with the opinion above Marlina (2015) mentioned because *impaired hearing* students rely on their visual aid which are characteristics of *impaired hearing* students in receiving information. Therefore the role of media for *impaired hearing* students is very meaningful in learning.

Learning using android game media aims to help students with special needs in learning Indonesian (Al-Irsyadi & Nugroho, 2015). In this study, the media used is an android game that has been downloaded on Google Playstore, this game contains a game about body parts consisting of matching images with words, arranging letters into words, and looking for paired

images. Related to android game media Muslimah, et al (2017) at the time of learning students are actively involved when using it and participate in making decisions about the course of a game. Not only used as a learning medium, game provide fun to students (Mirza, 2015).

In this research, the vocabulary of the body parts became the material that would be given to *impaired hearing* students. Related to body parts vocabulary, Hirnandin (2018), argued that the importance of introducing body parts to *impaired hearing* students is to direct them to know themselves and the environment through communication. While Restendy (2019) argued that in principle introducing body parts to *impaired hearing* students is the same as introducing body parts to normal children in general, only the process is somewhat different.

Word is a means of connecting ideas which are then conveyed through communication. Related to the above, Keraf (2006) states that in a word there is a meaning that aims to express an idea. In other words, individuals with a broad vocabulary can easily and smoothly communicate with other people.

In terms of the students diversity, students with special needs, special education services are needed that are tailored to the characteristics of each student so that they get learning that will be useful in the future. One of the students with special needs includes students with special needs with hearing impairments or deafness. According to Damri (2019) *impaired hearing* is an individual who loses the ability to hear partially or completely due to malfunctioning of his hearing aid. Another impact is causing language development to be hampered which results in the lack of auditive information which results in the lack of vocabulary mastery of these students (Filina, 2013).

The results of this study clearly show that using android game media can improve the ability to master vocabulary for *impaired hearing* students. The results of this study are supported by research Ultimate (2020), found that using Android-based barrier game media in improving communication skills showed an influence on the ability to understand vocabulary in *impaired hearing* students. Referring to the results of research supported by several previous studies, it is seen that the increase in vocabulary mastery skills, especially in learning the vocabulary mastery of the body parts, is carried out using android game learning media (Winarsih, 2018).

Another study found that through android game media, vocabulary mastery about body parts of *impaired hearing* students in special schools (SLB). (Rahman & Yuhefizar, 2017) Another way that can be done in improving the vocabulary mastery about body parts is by using the cai media (Setyawan, 2015), image animation media (Gustiananda, 2017), a picture crossword puzzle game (Purwoko & Masitoh, 2018)

and there are many other research results that show an increase in the ability of students to master vocabulary, this is adjusted again to the conditions of students, including the learning of students with special needs.

CONCLUSION

Android game media is an android-based media that is designed auditory and visually attractive, colorful and fun so that it can help *impaired hearing* students in learning vocabulary mastery of the body parts. Judging from the results of data processing, the results of the android game media can improve the vocabulary mastery of body parts in deaf students, this can be seen in the highest score achieved by students is 100 and can answer problem formulations and achieve research objectives. So that this media is expected to be used as an alternative to assist special educators in learning Indonesian on the vocabulary material about body parts.

REFERENCES

- Afifah, L. N., & Chamidah, A. N. (2019). Efektivitas Media Sexo App Terhadap Pemahaman Konsep Bagian Tubuh Pribadi Pada Anak Autis. *Jpk (Jurnal Pendidikan Khusus)*, 14(2), 77–85. <https://doi.org/10.21831/Jpk.V14i2.25170>
- Agusti, F. A., Zafrah, A., Engkizar, Anwar, F., Zainularifin, & Syafril, S. (2018). The Implantation Of Character Values Toward Students Through Congkak Game For Mathematics Instructional Media. *Jurnal Penelitian Pendidikan*, 35(2), 132–142.
- Al-Irsyadi, F. Y., & Nugroho, Y. S. (2015). Game Edukasi Pengenalan Anggota Tubuh Dan Pengenalan Angka Untuk Anak Berkebutuhan Khusus Tunagrahita Berbasis Kinect. *Prosiding Snatif*.
- Aini, K., Tamuri, A. H., & Syafril, S. (2019). Competency, Attitude and Islamic Teachers' Issue in Using Computer for Learning and Teaching Process. *Khalifa Journal of Islamic Education*, 3(1), 17-34.
- Ana, F. (2016). *Efektivitas Penggunaan Media Big Books Terhadap Kemampuan Membaca Permulaan Anak Tunarungu Kelas Dasar I Di Slb Widya Mulia Pundong Bantul Yogyakarta*. Universitas Negeri Yogyakarta.
- Anggraini, T. D., & Wahyuno, E. (2015). Pengaruh Penggunaan Media Permainan Dadu Terhadap Kemampuan Berhitung Pada Anak Tunagrahita Kelas 1. *Jurnal Penelitian Dan Pengembangan Pendidikan Luar Biasa*, 2(1), 22–26.
- Anjarsari, A. F., & Yulianti. (2017). Model Kooperatif Tipe Tps Terhadap Hasil Belajar Konsep Perkalian Bilangan Cacah Matematika Anak Tunarungu. *Jurnal Pendidikan Inklusi*, 1(1).
- Asmaranti, W., & Andayani, S. (2018). Mengapa Media Berbasis Komputer Dalam Pembelajaran Matematika Penting? Perspektif Guru Dan Siswa. *Jurnal Pendidikan Matematika Dan Sains*, 6(2), 146–157.
- Damri. (2019). *Panduan Pembelajaran Inklusi Di Sekolah Menengah Pertama*. Malang: Cv Irdh.
- Damri, D., Engkizar, E., & Anwar, F. (2017). Hubungan Self-Efficacy Dan Prokrastinasi Akademik Mahasiswa Dalam Menyelesaikan Tugas Perkuliahan. *Jurnal Edukasi: Jurnal Bimbingan Konseling*, 3(1), 74-95. <http://dx.doi.org/10.22373/je.v3i1.1415>
- Desak, Putu, E. N., & Sumarjaya, I. W. S. (2014). *Panduan Perancangan Media Pembelajaran Audio Visual Untuk Siswa Tuna Rungu*. Denpasar: Universitas Udayana.
- Engkizar, E., Muliati, I., Rahman, R., & Alfurqan, A. (2018). The Importance of Integrating ICT Into Islamic Study Teaching and Learning Process. *Khalifa Journal of Islamic Education*, 1(2), 148-168.
- Fathimah, N. S., & Ishartiwi, I. (2018). Pengembangan Multimedia Permainan Interaktif Pembelajaran Berhitung Bagi Anak Diskalkulia Usia Prasekolah. *Jurnal Inovasi Teknologi Pendidikan*, 5(2), 115–128.
- Febriarian, R., & Damri, D. (2019). Meningkatkan Kemampuan Menentukan Nilai Tempat Bilangan Melalui Media Papan Bilangan Bagi Anak Berkesulitan Belajar. *Jurnal Penelitian Pendidikan Khusus*, 7(2), 97–102.
- Filina, Z. (2013). Efektifitas Metode Role Playing Untuk Meningkatkan Kosakata Anak Tunarungu. *E-Jupekhu*, 1, 311–318.
- Gustiananda, M. (2017). *Pengaruh Penggunaan Media Animasi Gambar Terhadap Peningkatan Kemampuan Kosakata Bahasa Inggris Mengenal Anggota Tubuh Pada Peserta Didik Tunarungu Kelas X Smalb Di Slb Negeri Cicendo Bandung (Studi Eksperimen Dengan Single Subject Research)*. Universitas Pendidikan Indonesia.
- Handarini, Y., & Hasan, Y. (2019). Efektivitas Media Pembelajaran Corong Berhitung Untuk Meningkatkan Hasil Belajar Penjumlahan Sederhana Pada Anak Kesulitan Belajar. *Jurnal Penelitian Pendidikan Khusus*, 7(1), 258–263.
- Hirnanidin, A. (2018). *Video Game Edukatif Terhadap Kemampuan Mengenal Diajukan Kepada Universitas Negeri Surabaya Video Game Edukatif Terhadap Kemampuan Mengenal Anggota Tubuh Manusia Pada Anak Tunarungu Kelas I*.

- Jambor, E., & Elliott, M. (2005). Self-esteem and coping strategies among deaf students. *Journal of Deaf Studies and Deaf Education*, 10(1), 63-81.
- Kasmar, I. F., Amnda, V., Mutathahirin, M., Maulida, A., Sari, W. W., Putra, S., ... & Engkizar, E. (2019). The Concepts of Mudarris, Mu'allim, Murabbi, Mursyid, Muaddib in Islamic Education. *Khalifa Journal of Islamic Education*, 3(2), 107-125.
- Keraf, G. (2006). *Diksi Dan Gaya Bahasa*. Jakarta: Pt Gramedia Pustaka Utama.
- Marschark, M., Sapere, P., Convertino, C. M., Mayer, C., Wauters, L., & Sarchet, T. (2009). Are deaf students' reading challenges really about reading?. *American annals of the deaf*, 154(4), 357-370.
- Marlina. (2015). *Asesmen Anak Berkebutuhan Khusus: Pendekatan Psikoedukasional Edisi Revisi*. Padang: Unp Press.
- Mirza, H. (2015). *Analisis Pengembangan Game Edukasi "Indonesiaku" Sebagai Pengenalan Warisan Budaya Indonesia Untuk Anak Usia 12-15 Tahun*. Universitas Negeri Yogyakarta.
- Muhson, A. (2010). Pengembangan Media Pembelajaran Berbasis Teknologi Informasi, *Viii*(2).
- Murniyetti, M., Engkizar, E., & Anwar, F. (2016). Pola pelaksanaan pendidikan karakter terhadap siswa sekolah dasar. *Jurnal Pendidikan Karakter*, 6(2). <https://doi.org/10.21831/jpk.v6i2.12045>
- Muslimah, E., Nurdiniah, S. H., & Mahdian. (2017). Meningkatkan Hasil Belajar Dan Keterampilan Mengambil Keputusan Dengan Penerapan Model Poe Pada Materi Hidrolisis Garam Kelas Xi-Mia 2 Man. *Journal Of Chemistry And Education*, 1(1), 46-51.
- Pamungkas, N. A. (2020). Penggunaan Media Barrier Game Terhadap Kemampuan Memahami Kosakata Pada Anak Tunarungu. *Jurnal Pendidikan Khusus*, 15(2).
- Putra, A. E., Rukun, K., Irfan, D., Engkizar, E., Wirdati, W., Munawir, K., Usmi, F., & @Ramli, A. J. (2020). Designing and Developing Artificial Intelligence Applications Troubleshooting Computers as Learning Aid. *Asian Social Science and Humanities Research Journal (ASHREJ)*, 2(1), 38-44. <https://doi.org/10.37698/ashrej.v2i1.22>
- Purwoko, B., & Masitoh, S. (2018). Permainan Teka-Teki Silang Bergambar Terhadap Penguasaan Kosakata Siswa Tunarungu. *Jurnal Pendidikan Khusus*, 10(2).
- Putra, I. H. (2020). *Analisis Kemampuan Voice Call Aplikasi Viber Messenger Menggunakan Jaringan Wi-Fi Dan Operator Seluler Dengan Parameter Quality Of Service* (Doctoral dissertation, Universitas Jenderal Soedirman).
- Qoyyimah, A. D., & Adi, E. P. (2017). Aplikasi Permainan Berbasis Android Dalam Meningkatkan. *Jurnal Ortopedagogia*, 3(2), 81-86.
- Rahman, F. S., & Yuhefizar, Y. (2017). (2017). Aplikasi Virtual Kata Untuk Komunikasi Penyandang Tunarungu Berbasis Android. *Jurnal Resti (Rekayasa Sistem Dan Teknologi Informasi)*, 1(2), 99-105.
- Rahawarin, Y., Engkizar, E., Hakim, R., Sari, W. W., Ramdani, N. S., Kasmar, I. F., Wulandari, S., Restari, Y. A., Mutathahirin, M., Amnda, V., & Arifin, Z. (2020). Seven Motivations of Students Selecting Department of Islamic Teaching Education in Public University. *Asian Social Science and Humanities Research Journal (ASHREJ)*, 2(1), 45-55. <https://doi.org/10.37698/ashrej.v2i1.25>
- Restendy, M. S. (2019). Model Belajar Dan Komunikasi Anak Disabilitas Tunarungu Wicara Di Taman Pendidikan Al Quran Luar Biasa (Tpqlb) Spirit Dakwah Indonesia Tulungagung. *Jurnal Komunika Islamika*, 6(1), 58-74.
- Saputri, R. (2013). *Metode Maternal Reflektif Dengan Permainan Scrabble Terhadap Kemampuan Membaca Permulaan Anak Tunarungu*. Jurnal Pendidikan Khusus. Universitas Negeri Surabaya.
- Syafril, S., & Yaumas, N. E. (2018). The Implementation of Tartil Method in Improving Elementary School Students' Ability in Reading Al-Qur'an. *Khalifa Journal of Islamic Education*, 1(1), 1-14.
- Syafril, S., Aini, N. R., Netriwati, N., Pahrudin, A., & Yaumas, N. E., Engkizar, E. (2020). Spirit of Mathematics Critical Thinking Skills (CTS). *JPhCS*, 1467(1), 012069. <https://doi.org/10.1088/1742-6596/1467/1/012069>
- Setyawan, A. (2015). Pengembangan Media Cai Untuk Meningkatkan Hasil Belajar Mata Pelajaran Bahasa Inggris Materi Pengenalan Kosakata Anggota Tubuh Manusia Dalam Bentuk Teks Disriptif Bergambar Siswa Kelas I Sdn Menur Pumpungan Iv Surabaya. *Jurnal Mahasiswa Teknologi Pendidikan*, 5(3).
- Sudarto, Z., Rofiah, K., Ardianingsih, F., & Sujarwanto. (2019). Program Intervensi Terpadu Anak Berkebutuhan Khusus: Proses Pengembangan Kurikulum. *Jurnal Pendidikan Inklusi*, 3(1), 001-010.
- Sudjana, Nana, A. R. (2005). *Media Pengajaran*. Bandung: Sinar Baru Algensindo.
- Sudjipto, B. (2011). *Media Pembelajaran Manual Dan Digital*. Bogor: Ghalia Indonesia.
- Susilana, R. (2008). *Media Pembelajaran: Hakikat, Pengembangan, Pemanfaatan Dan Penilaian*. Bandung: Jurusan Kurtekipend Fip Upi.

- Utami, D. W., Anwar, M., & Hermawan. (2018). Pengaruh Penggunaan Model Pembelajaran Assure Terhadap Peningkatan Prestasi Belajar Ipaanak Tunalaras Kelas Iv Di Slb E Bhina Putera Surakarta Tahun Ajaran 2017/2018. *Jurnal Pendidikan Inklusi*, 2.
- Winarsih, M. (2018). Video Game Edukatif Berbasis Android Sebagai Media Pembelajaran Membaca Permulaan Untuk Anak Tunarungu. *Prosiding Sntp*, 1.
- Yunus, M. (2014). *Pendidikan Anak Dengan Hambatan Pendengaran*. Padang: Sukabina Press.
- Yusnita, Y., Eriyanti, F., Engkizar, E., Anwar, F., Putri, N. E., Arifin, Z., & Syafril, S. (2018). The Effect of Professional Education and Training for Teachers (PLPG) in Improving Pedagogic Competence and Teacher Performance. *Tadris: Jurnal Keguruan dan Ilmu Tarbiyah*, 3(2), 123-130. <https://doi.org/10.24042/tadris.v3i2.2701>.
- Zafirah, A., Agusti, F. A., Engkizar, E., Anwar, F., Alvi, A. F., & Ernawati, E. (2018). Penanaman nilai-nilai karakter terhadap peserta didik Melalui permainan congkak sebagai media pembelajaran. *Jurnal Pendidikan Karakter*, 8(1). <https://doi.org/10.21831/jpk.v8i1.21678>.