Implementation of Inclusive Education for Students with Hearing Impairment (Deaf): A Study in Elementary School

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Abstract

Inclusive education is based on the right of all learners to a quality education that meets their basic learning needs and enriches their lives. This study aims to describe the implementation of elementary school inclusive education for students with hearing loss. This research method used a qualitative descriptive approach. Data collection techniques were carried out through interviews with teachers, and observation. This research uses triangulation techniques to check the validity of the data. Data analysis techniques consist of data reduction, data presentation, and conclusion drawing. The results of this study found that in the implementation of inclusive learning/education in elementary school, three important components support the academic success of learners with hearing impairments, namely: (1) the role of the teacher is to create a positive and meaningful classroom atmosphere for learners, positioning learners with hearing impairments to be considered by other classmates, not as different children; (2) the role of fellow learners in the classroom is as allies to support and help each other in academic activities; and (3) the role of parents is to provide more attention, support and time to support children's cognitive health and academic development and success.

Keywords: Inclusive Education, Inclusive Elementary School, Deaf Student.

Abstrak

Pendidikan inklusif didasarkan pada hak semua peserta didik untuk mendapatkan pendidikan berkualitas yang memenuhi kebutuhan belajar dasar dan memperkaya kehidupan. Tujuan penelitian ini ialah untuk mendiskripsikan pelaksanaan pendidikan inklusif sekolah dasar bagi peserta didik dengan hambatan pendengaran. Metode penelitian ini menggunakan pendekatan deskriptif kualitatif. Teknik pengumpulan data di lakukan melalui metode wawancara kepada guru, observasi. Penelitian ini menggunakan triangulasi teknik untuk memeriksa keabsahan data. Teknik analisis data terdiri dari reduksi data, penyajian data, dan penarikan kesimpulan. Hasil penelitian ini memperoleh temuan bahwa dalam pelaksanaan pembelajaran/pendidikan inklusif Sekolah Dasar terdapat tiga komponen penting yang menunjang keberhasilan akademik peserta didik dengan hambatan pendengaran yaitu: (1) peran guru adalah menciptakan suasana kelas yang positif dan bermakna bagi peserta didik, memposisikan peserta didik dengan hambatan pendengaran ini dianggap oleh teman kelas yang lain bukan sebagai anak yang berbeda; (2) peran teman peserta didik di dalam kelas adalah sebagai rekan untuk saling mendukung dan membantu dalam kegiatan akademik; dan (3) peran Orang tua adalah memberikan perhatian, dukungan, dan waktu yang lebih untuk mendukung kesehatan kognitif anak serta perkembangan dan kesuksesan akademik.

Kata Kunci: Pendidikan Inklusif, Sekolah Dasar Inklusif, Peserta Didik Tunarungu.

INTRODUCTION

Deafness is a condition in the form of hearing impairment or loss based on gradations/levels of mild, moderate, severe, and very severe, resulting in communication and language problems. This situation also hinders children's success in processing linguistic information through their

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hearing (Hallahan et al., 2014; Brill et al., 1986). Children with hearing loss are at risk of lower educational achievement (Straaten et al., 2021). Limitations Deaf children who are not fluent in sign language from birth generally cause delays in the progress of the teaching and learning process and academic abilities compared to normal children, especially in the field of mathematics. This delay has been going on for years. This gap is widespread and appears from the age of 3 years and continues into adulthood (Santos & Cordes, 2022).

In the learning process, communication is important between teachers and students to find out the extent to which the lesson has been understood. However, the limited ability of deaf students to communicate makes teaching and learning activities for deaf children more difficult (Salsabila et al., 2020). This requires teachers to have knowledge and skills in using appropriate communication methods with students, especially deaf students (Alasim, 2023). However, education is needed by everyone, including deaf children who have the right to receive a proper education through inclusive education. Views regarding inclusion for deaf students have undergone significant changes due to the emergence of policy and legislative developments that give deaf children the right to receive the same education as their hearing peers in public school (Borders et al., 2016; Edmondson & Howe, 2019).

Most deaf children use hearing aids because the relatively lower level of hearing loss allows them to attend inclusive education or public school (Shaver et al., 2014). Inclusive education policies allow deaf children to have access to the public school curriculum at the same pace and in the same way as it is taught to their hearing peers with the option to receive additional support in the form of special education services (Straaten et al., 2021). Some literature shows that deaf children attending public schools at the elementary school level tend to have higher academic achievements compared to deaf children attending special school (Marschark et al., 2015; Wauters et al., 2006). The experiences of deaf and hard-of-hearing students in these classrooms can be inclusive or limited depending on the level of accessibility and social integration (Silvestri & Hartman, 2022).

Inclusive education presents the placement of deaf students in general education classrooms for most or all of the academic activity process potentially with little or no interaction with other deaf and hard-of-hearing students and adults (Murray et al., 2020). Services in inclusive education for deaf children include speech therapy, counseling, special educators, deaf teachers, and other consultants, as well as additional resources such as translators, note-takers, hearing technology, preferential seating, and other classroom accommodations (Silvestri & Hartman, 2022; Allman et al., 2019). Apart from that, in inclusive education teachers are required to be more skilled in the educational process so that they can meet the needs of deaf students (Ntinda et al., 2019). Because teacher competence is one of the external factors that influences students' language and cognitive development (Bintoro, 2011).

One of the inclusive schools in the city of Palembang, especially at the elementary school level, is SDN 30 Palembang. This school was appointed by the Palembang City education office in 2013 and is one of the first school, especially at the elementary school level, to implement inclusive education in the city of Palembang. Even though inclusive education has been implemented for a long time, there has been no research on the implementation of inclusive education or research that explores how inclusive education is implemented in school.

Several previous studies on inclusive education for students with hearing impairments, namely research by Engelbrecht, et al (2017) on interpreting inclusive education practices in the classroom, found that the role and understanding of teachers regarding the implementation of inclusive education is very important so that teaching practices are based on an understanding of diverse educational needs. Then, Ntinda, et al (2019) conducted research exploring teachers' experiences in educating deaf students and found findings that highlighted the important role that teachers have in communication, teaching, learning, and the welfare of deaf students and students

with hearing impairments. Given the important role that the teachers of these students play in communication and the quality of school life perceived by these students, educational and guidance intervention strategies should seek to strengthen teachers as the primary resource for these students. Furthermore, research conducted by Alasim (2023), a meta-analysis of inclusive education and students with hearing loss, in this study recommends further inclusive education research by dividing potential factors that influence student inclusion into four categories: related factors with students; factors related to teachers; factors related to the family environment, and factors related to the school environment. Based on this description, this research aims to determine the implementation of inclusive elementary school education for students with hearing impairments.

RESEARCH METHOD

The method used in this research uses a qualitative descriptive approach. A qualitative approach is a research procedure that describes an individual's life, collects and tells stories about that individual's life, and writes narratives about experiences in class or activities at school (Creswell, 2014). The object of this research is the implementation of inclusive education in elementary school for students with hearing impairments. The research informants, also known as the subjects who will be researched, are two teachers and students with special needs who are deaf, class III at State Elementary School 30 Palembang, consisting of two students. Data collection techniques in this research took the form of interviews with teachers and observations of students with hearing impairments (deaf) in inclusive education school.

Testing the validity of the data in this research uses triangulation techniques so that the data collected can be trusted and can be scientifically justified. Meanwhile, the qualitative data analysis technique consists of three stages: (1) data reduction, namely the researcher carries out information retrieval activities through interviews with school principals and teachers to create a summary of the main data that supports the research; (2) data display (data presentation), namely the researcher analyzes the results of the information obtained then presents the data descriptively and systematically so that it is easy for readers to understand; (3) conclusion drawing/verification (concluding), namely the researcher draws conclusions regarding the formulation or research objectives.

RESULTS AND DISCUSSION

Profile of School and Students with Hearing Impairment

The profile of children with special needs in this research is children with hearing impairments (deaf) in inclusive education at State Elementary School 30 Palembang who are in class III. SDN 30 Palembang is one of 6 elementary school appointed by the Palembang City education office to run inclusive education school since 2013. Based on an interview with the principal of SDN 30 Palembang as follows:

".... Since 2013, SDN 30 Palembang has always accepted students with special needs, especially now that every educational unit is required by the government to accept students with special needs who register at that school. However, we still have to give priority to students whose residential addresses are in the vicinity of the school environment or the zoning system....for the implementation of the educational process there are two sessions, namely the morning class and the afternoon class due to the insufficient availability of classrooms to be carried out simultaneously in the morning...."

So, in accepting students with special needs, especially students with hearing impairments, there is no special test for admission, the school refers to the regulations set by the government

regarding the admission system, for the class placement of students with hearing impairments it is divided equally into two classes, namely morning class and afternoon class.

Inclusive education is seen not only as about access to education, but towards acceptance and participation to realize and support quality education for various kinds of students regardless of differences (Engelbrecht et al., 2017). Based on interviews with teachers, some information was obtained regarding the profile of students with hearing impairments which was conveyed as follows:

"...students with hearing impairments entered school starting from grade 1 and now they are in grade 3. Students with hearing impairments always use hearing aids while studying at school because students cannot hear if they don't use hearing aids. ...where the level of this student's hearing impairment is classified as moderate..."

So being deaf doesn't mean they have lost their hearing completely. However, most deaf people can still understand some sounds through residual hearing. Heward, et al (2017) explained that the degree of hearing loss in the moderate category is at 56-70 dB or decibels, where the impact is that without hearing aids you can hear conversations only if they are close, loud and clear, find it very difficult to follow group discussions, and requires amplification of delivery, when hearing people speak they feel disturbed but can be understood. Early hearing aids and cochlear implants have been proven to help many children achieve near-normal speech and language development that serves to amplify and clarify sounds, allowing students with hearing impairments to use their residual hearing productively to overcome obstacles in the process. Their education and social status (Lieu et al., 2020; Heward et al., 2017; Farooq et al., 2015).

Implementation of Inclusive Education in Elementary School

Proper implementation of inclusive education learning will optimize the success of teachers in educating, especially students with hearing impairments. Researchers dig up information about what teachers need to prepare in carrying out the educational process where there are students with hearing impairments in the class. The following is information provided by teachers regarding things that need to be considered for the successful implementation of inclusive education in elementary school:

"... the first time I met a child with hearing loss, he was confused, but over time I was able to adapt to him... For the sitting position of children with hearing impairments, I position them at the front...we also have to instill an attitude in the students in the class that they are to help each other, this is important when children with hearing impairments experience difficulties during the learning process, they will be helped by their friends... then at the beginning of the semester discuss with the parents of students with hearing impairments to find out what special concerns are for the child and also ask the teacher who taught in the previous class so that it is continuous..."

The curriculum used at the school is the 2013 curriculum. The teacher explained that language is an inhibiting factor that teachers encounter in carrying out the learning process, because deaf children bring their mother tongue when they enter school so they need to be trained in language synchronization, namely the use of Indonesian properly and correctly. , as well as numbers. Jong, et al (2023) explained that students with hearing impairments have obstacles in their ability to develop vocabulary, grammar and comprehension, resulting in mismatches in communication strategies. Having better language skills also increases the chances of students with hearing loss attending inclusive school, allowing them more opportunities for verbal interactions that support better social and pragmatic development (Theunissen et al., 2015; Straaten et al., 2021). The next difficulty is that students with hearing impairments have difficulty imagining an object

being taught so when carrying out educational activities teachers must prepare teaching materials in the form of pictures that support the implementation of learning so that students can understand the objects we are teaching. The following are the results of interviews delivered by teachers regarding the learning models and strategies prepared for the process of implementing learning in class:

"...the model I use depends on the material to be studied, but more often it is the problem-based learning (PBL) and exploration model...the strategy I instill in myself the most is never giving up because when we teach something it won't It only works once, it takes several repetitions until they understand... My experience of teaching students with special needs was exciting and from there I learned that students with special needs are the same as students in general, there is only a difference in the language used... the most important thing is the involvement of the students parents, so we need to establish communication. and involves the role of parents in repeating material that has been studied at home..."

Parents must be open and understand that children with hearing impairments need more attention to support their academic development. Because the people who spend more time with them are their parents, the role of parents is very important for students with hearing impairments. Then a teacher in inclusive education needs to instill a positive attitude in all students in the class and eliminate stereotypical attitudes of students so that collaborative behavior is created. This also makes students with hearing impairments feel comfortable learning and do not feel strange or ostracized in the classroom. inclusive class. And most importantly, teachers must never give up on teaching for the academic success of children with hearing impairments.

School need to work together with parents to ensure that children's learning and development needs can be met (Greenway & Eaton-Thomas, 2020). The situation of parents who have children with special needs requires them to devote a lot of time, energy, and physical and mental strength to the entire child's development process (Aksamit & Martin, 2021). Apart from that, long-term programs are needed such as companion programs carried out by universities to inclusive elementary school in solving problems in inclusive classrooms so that prospective elementary school teachers who will teach in inclusive elementary school are expected to be able to reduce theoretical gaps and implement good inclusive education in inclusive elementary school. (Rasmitadila et al., 2021; Engelbrecht et al., 2016).

So, in implementing inclusive learning/education in elementary school, three important components support the academic success/success of students with hearing impairments, namely the role of the teacher, the role of the students' friends in the class, and the role of parents. Teachers must be able to position students with hearing impairments as being seen by other classmates as not different children, to create collaboration and an attitude of mutual assistance between normal students and students with hearing impairments both inside and outside the process of teaching and learning activities.

Normal students become very important friends for students with hearing impairments to ask for help (Snoddon & Murray, 2023). All students must help each other during lessons and raise awareness among peers regarding the difficulties and shortcomings of classmates who have hearing impairments (Schwab et al., 2019). Creating an inclusive class of course involves all students being accepted and respecting diversity. Classmate support in an inclusive environment acts as a driver of a person's development to contribute to and benefit from the learning environment (Fong et al., 2023). The mutually supportive relationships formed in students' environments not only contribute to academic success but also the development of their social skills (Sahara et al., 2024).

Teaching in inclusive classes is a more difficult task for teachers, especially students with hearing impairments because it requires multi-sensory communication, mutual interaction, guidance, and individualized learning (Hankebo, 2018). However, teachers must create a positive and meaningful classroom atmosphere for students. For this reason, teachers should try to motivate

interest and relevance or meaningfulness in the acquisition of knowledge of deaf students through more interesting activities, exercises, and motivating problems that are closer to reality or their daily lives (Csikszentmihalyi, 2020). Teachers must be skilled at continuous communication in building caring relationships and supporting them in the learning process (Aspelin & Johnson 2019). This will foster the perception of students with hearing impairments so that they feel understood and respected (Kelly et al., 2022). Teachers must also actively build relationships with parents of students with hearing impairments, especially in terms of the learning process, academic development, material they have not yet mastered, and other inhibiting factors. Parents must understand that this child needs more attention, support, and time to help with his academic development process. Hence, it is hoped that parents can repeat or re-teach the material that students have learned at home.

Parental involvement provides positive results for children's development and education (Zaidman-Zait, 2018). In addition, effective parenting and communication between parents and children with hearing loss is very important for the development of the child's physical, social, emotional, mental, and cognitive well-being (Opoku et al., 2022; Pullen et al., 2017). Parents should immediately introduce and train children with hearing impairments with sign language in addition to spoken language which can support cognitive health and academic success (Humphries et al., 2019). As a skill needed to interact with wider society (Hassanzadeh, 2012; Humphries et al., 2014).

CONCLUSION

An important component of inclusive education in elementary school consists of teachers, friends, and parents. In implementing inclusive education in elementary school, especially for students with hearing impairments, several things need to be considered for academic success following learning objectives. An important component that supports the academic success of students with hearing impairments lies in the teacher's role both in learning activities and in establishing communication with students' parents regarding barriers to academic achievement, the role of students' friends in the classroom, and the role of parents in repeating or re-teaching material that students with hearing impairments have learned at home.

It is hoped that the results of this research can be a reference in knowing the important components of implementing inclusive education, especially for children with hearing impairments. Apart from that, we know that not all teachers are familiar with and receive lessons/training about inclusive education when pursuing education in college. So a training program is needed for each subject teacher regarding strategies and approaches to handling students with special needs in inclusive school so that the implementation of inclusive education in elementary school can be carried out optimally. Researchers suggest that further research needs to be carried out regarding the implementation of better approaches or handling methods in the implementation of learning/education for successful academic development that covers all students in the class, both normal students and students with special needs in inclusive schools.

REFERENCE

Aksamit, D., & Martin, M. d. (2021). Experiences of Mothers Who Care for Adults with Profound Intellectual Disabilities. Qualitative Study. International Journal of Special Education, 36(2), 13-26. doi:https://doi.org/10.52291/ijse.2021.36.13

Alasim, K. (2023). Inclusion and d/Deaf and Hard of Hearing Students: A Qualitative Meta-Analysis. International Journal of Disability, Development and Education, 70(6), 1120-1146. doi:https://doi.org/10.1080/1034912X.2021.1931818

- Allman, T., Boser, S. W., & Murphy, E. M. (2019). Including students who are deaf or hard of hearing: Principles for creating accessible instruction. Preventing School Failure: Alternative Education for Children and Youth, 63(2), 105-112 . doi:https://doi.org/10.1080/1045988X.2018.1501655
- Aspelin, J., & Jonsson, A. (2019). Relational competence in teacher education. Concept analysis and report from a pilot study. Teacher Development: An International Journal of Teachers' Professional Development, 23(2), 264-283. doi:https://doi.org/10.1080/13664530.2019.1570323
- Bintoro, T. (2011). Kemampuan Komunikasi Anak Tunarungu. Perspektif Ilmu Pendidikan, 7(14), 12-40. doi:https://doi.org/10.21009/PIP.231.2
- Borders, C. M., Gardiner-Walsh, S., Herman, M., & Turner, M. (2016). Inclusion of Deaf/Hard of Hearing Students in the General Education Classroom. In General and Special Education Inclusion in an Age of Change: Impact on Students with Disabilities (Vol. 31, pp. 65-94). Bingley: Emerald Group Publishing Limited. doi:https://doi.org/10.1108/S0270-401320160000031006
- Boyera, J. C., & Mailloux, N. (2015). Student Teachers' Self-perception of Their Mathematical Skills and Their Conceptions About Teaching Mathematics in Primary Schools. Procedia-Social and Behavioral Sciences, 174, 1434-1442 . doi:https://doi.org/10.1016/j.sbspro.2015.01.772
- Brill, R. G., MacNeil, B., & Newman, L. R. (1986). Framework for Appropriate Programs for Deaf Children: Conference of Educational Administrators Serving the Deaf. American Annals of the Deaf, 131(2), 65–77. doi:10.1353/aad.2012.1405
- Creswell, J. W. (2014). Educational Research: Planning, Conducting and Evaluating Quantitative and Qualitative Research (Fourth ed.). London: Pearson Education Limited.
- Csikszentmihalhi, M. (2020). Finding Flow: The Psychology Of Engagement With Everyday Life. UK: Hachette.
- Dobie, T. E. (2019). Expanding Conceptions of Utility: Middle School Students' Perspectives on the Usefulness of Mathematics. Mathematical Thinking and Learning, 21(1), 28-53. doi:https://doi.org/10.1080/10986065.2019.1564969
- Edmondson, S., & Howe, J. (2019). Exploring the social inclusion of deaf young people in mainstream schools, using their lived experience. Educational Psychology in Practice theory, research and practice in educational psychology, 35(2), 216-228. doi:https://doi.org/10.1080/02667363.2018.1557113
- Engelbrecht, P., Engelbrechta, P., Nel, M., Smit, S., & Deventer, M. v. (2016). The idealism of education policies and the realities in schools: the implementation of inclusive education in South Africa. International Journal of Inclusive Education, 20(5), 520-535. doi:https://doi.org/10.1080/13603116.2015.1095250
- Engelbrecht, P., Savolainen, H., Nel, M., Koskela, T., & Okkolin, M.-A. (2017). Making meaning of inclusive education: classroom practices in Finnish and South African classrooms. Compare: A Journal of Comparative and International Education, 47(5), 684-702. doi:https://doi.org/10.1080/03057925.2016.1266927
- Farooq, M. S., Aasma, & Iftikhar, U. (2015). Learning through Assistive Devices: A Case of Students with Hearing Impairment. Bulletin of Education and Research, 37(1), 1-17.
- Fong, T. C., Cheng, Q., Pai, C. Y., Kwan, I., Wong, C., Cheung, S.-H., & Yip, P. S. (2023). Uncovering sample heterogeneity in gaming and social withdrawal behaviors in adolescent and young adult gamers in Hong Kong. Social Science & Medicine, 321, 115774. doi:https://doi.org/10.1016/j.socscimed.2023.115774

- Gafoor, K. A., & Kurukkan, A. (2015). Why High School Students Feel Mathematics Difficult? An Exploration of Affective Beliefs. UGC Sponsored National Seminar on Pedagogy of Teacher Education, Trends and Challenges, 1-6.
- Greenway, C. W., & Eaton-Thomas, K. (2020). Parent experiences of home-schooling children with special educational needs or disabilities during the coronavirus pandemic. British Journal of Special Education, 47(4), 510-535. doi:https://doi.org/10.1111/1467-8578.12341
- Guerra-Antequera, J., Antequera-Barroso, J.-A., & Revuelta-Domínguez, F.-I. (2022). Degree Of Motivation And Acquisition Of Visuospatial Perception After The Incorporation A Video Game In The Learning of Mathematical Knowledge. Heliyon, 8(8), 1-10. doi:https://doi.org/10.1016/j.heliyon.2022.e10316
- Hallahan, D. P., Kauffman, J. M., & Pullen, P. C. (2014). Exceptional Learners An Introduction to Special Education (Twelfth Edition ed.). United States of America: Pearson Education Limited.
- Hankebo, T. A. (2018). Being a Deaf and a Teacher: Exploring the Experiences of Deaf Teachers in Inclusive Classrooms. International Journal of Instruction, 11(3), 477-490. doi:https://doi.org/10.12973/iji.2018.11333a
- Hassanzadeh, S. (2012). Outcomes of cochlear implantation in deaf children of deaf parents: comparative study. The Journal of Laryngology & Otology, 126(10), 989-994. doi:https://doi.org/10.1017/S0022215112001909
- Heward, W. L., Alber-Morgan, S. R., & Konrad, M. (2017). Exceptional Children An Introduction Special Education (Eleventh ed.). Pearson.
- Humphries, T., Kushalnagar, P., Mathur, G., Napoli, D. J., Rathmann, C., & Smith, S. (2019). Support for parents of deaf children: Common questions and informed, evidence-based answers. International journal of pediatric otorhinolaryngology, 118, 134-142. doi:https://doi.org/10.1016/j.ijporl.2018.12.036
- Humphries, T., Kushalnagar, P., Mathur, G., Napoli, D. J., Padden, C., & Rathman, C. (2014). Ensuring language acquisition for deaf children: What linguists can do. Language, 90(2), 31-52. doi:https://doi.org/10.1353/lan.2014.0036
- Jong, T. J., Schroeff, M. P., Stapersma, L., & Vroegop, J. L. (2023). A Systematic Review on The Impact of Auditory Functioning and Language Proficiency on Psychosocial Difficulties in Children and Adolescents With Hearing Loss. International Journal of Audiology, 1-11. doi:https://doi.org/10.1080/14992027.2023.2261074
- Kelly, J. F., McKinney, E. L., & Swift, O. (2022). Strengthening teacher education to support deaf learners. International Journal of Inclusive Education, 26(13), 1289-1307. doi:https://doi.org/10.1080/13603116.2020.1806366
- Lee, A. (2023). Middle School Student-Generated Ideas About Math: Definitions and Utility. RANGE: Undergraduate Research Journal, 24(1).
- Liebendörfer, M., & Schukajlow, S. (2020). Quality Matters: How Reflecting on The Utility Value of Mathematics Affects Future Teachers' Interest. Educational Studies in Mathematics, 105, 199-218. doi:https://doi.org/10.1007/s10649-020-09982-z
- Lieu, J. E., Kenna, M., Anne, S., & Davidson, L. (2020). Hearing Loss in Children: A Review. JAMA, 324(21), 2195-2205. doi:10.1001/jama.2020.17647
- Marschark, M., Shaver, D. M., Nagle, K. M., & Newman, L. A. (2015). Predicting the Academic Achievement of Deaf and Hard-of-Hearing Students From Individual, Household, Communication, and Educational Factors. Exceptional Children, 81(3), 350-369. doi:https://doi.org/10.1177/0014402914563700

- Murray, J. J., Snoddon, K., Meulder, M. D., & Underwood, K. (2020). Intersectional inclusion for deaf learners: moving beyond General Comment no. 4 on Article 24 of the United Nations Convention on the Rights of Persons with Disabilities. International Journal of Inclusive Education, 24(7), 691-705. doi:https://doi.org/10.1080/13603116.2018.1482013
- Ntinda, K., Thwala, S. K., & Tfusi, B. (2019). Experiences of Teachers of Deaf and Hard-of-Hearing Students' in a Special Needs School: An Exploratory Study. Journal of Education and Training Studies, 7(7), 79-89. doi:https://doi.org/10.11114/jets.v7i7.4274
- Opoku, M. P. (2022). Understanding the parental experiences of raising deaf children in Ghana. Journal of Family Studies, 28(4), 1235-1254. doi:https://doi.org/10.1080/13229400.2020.1815557
- Pullen, D., Swabey, K., Carroll, A., Lombard, S., & Garate, M. P. (2017). Lifespan Development in an Educational Context: A Topical approach. Australia: John Wiley & Sons Australia, Ltd.
- Rasmitadila, Humaira, M. A., Rachmadtullah, R., Sesrita, A., Laeli, S., Muhdiyati, I., & Firmansyah, W. (2021). Teacher Perceptions of University Mentoring Programs Planning for Inclusive Elementary Schools: A Case Study in Indonesia. International Journal of Special Education, 36(2), 53-65. doi:https://doi.org/10.52291/ijse.2021.36.18
- Riswandha, S. H., & Sumardi. (2020). Komunikasi Matematika, Persepsi Pada Mata Pelajaran Matematika, Dan Kemandirian Belajar Terhadap Hasil Belajar Siswa. Jurnal Mercumatika: Jurnal Penelitian Matematika dan Pendidikan Matematika, 4(2), 84-93. doi:https://doi.org/10.26486/jm.v4i2.1208
- Sahara, B., Mumpuniarti, M., Suwarjo, S., & Syamsuri, M. (2024). Perspectives of Peers as a Microsystem for Supporting Deaf Students inInclusive Elementary Schools. International Journal of Learning, Teaching and Educational Research, 23(4), 298-319. doi:https://doi.org/10.26803/ijlter.23.4.16
- Salsabila, F. N., Yuhana, U. L., Yuniarno, E. M., & Purnomo, M. H. (2020). Sifte-Math, A Sifteo based Mathematics Assessment Serious Game for Deaf Children. 2020 International Electronics Symposium (IES), 620-625. doi:10.1109/IES50839.2020.9231578
- Santos, S., & Cordes, S. (2022). Math abilities in deaf and hard of hearing children: The role of language in developing number concepts. Psychological Review, 129(1), 199-211. doi:https://doi.org/10.1037/rev0000303
- Schwab, S., Wimberger, T., & Mamas, C. (2019). Fostering Social Participation in Inclusive Classrooms of Students who are Deaf. International Journal of Disability, Development and Education, 66(3), 325-342. doi:https://doi.org/10.1080/1034912X.2018.1562158
- Shaver, D. M., Marschark, M., Newman, L., & Marder, C. (2014). Who Is Where? Characteristics of Deaf and Hard-of-Hearing Students in Regular and Special Schools. The Journal of Deaf Studies and Deaf Education, 19(2), 203-219. doi:https://doi.org/10.1093/deafed/ent056
- Silvestri, J. A., & Hartman , M. C. (2022). Inclusion and Deaf and Hard of Hearing Students: Finding Asylum in the LRE. Education Sciences, 12(11), 1-18. doi:https://doi.org/10.3390/educsci12110773
- Snoddon, K., & Murray, J. J. (2023). Supporting deaf learners in Nepal via Sustainable Development Goal 4: Inclusive and equitable quality education in sign languages. International Journal of Speech-Language Pathology, 25(1), 92-95. doi:https://doi.org/10.1080/17549507.2022.2141325
- Straaten, T. F., Briaire, J. J., Dirks, E., Soede, W., Rieffe, C., & Frijns, J. H. (2021). The School Career of Children With Hearing Loss in Different Primary Educational Settings-A Large Longitudinal Nationwide Study. The Journal of Deaf Studies and Deaf Education, 26(3), 405-416. doi:https://doi.org/10.1093/deafed/enab008

- Theunissen, S. C., Rieffe, C., Soede, W., Briaire, J. J., Ketelaar, L., Kouwenberg, M., & Frijns, J. H. (2015). Symptoms of Psychopathology in Hearing-Impaired Children. Ear and Hearing, 36(4), 190-198. doi:10.1097/AUD.000000000000147
- Wauters, L. N., Bon , W. H., & Tellings , A. E. (2006). Reading Comprehension of Dutch Deaf Children. Reading and Writing, 19(1), 49-76. doi:https://doi.org/10.1007/s11145-004-5894-0
- Zaidman-Zait, A., Most, T., Tarrasch, R., & Haddad, E. (2018). Mothers' and fathers' involvement in intervention programs for deaf and hard of hearing children. Disability and Rehabilitation, 40(11), 1301-1309. doi:https://doi.org/10.1080/09638288.2017.1297491