



Challenges of a Hard of Hearing Learner in Online Language Education

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Abstract

While inclusive education (IE) is embraced at the conceptual level and desired at the classroom level, successful IE implementation remains highly complex. COVID-19 (Coronavirus Disease 2019) outbreak which necessitated a quick switch to remote instruction made IE even harder to put into practice. Despite several studies regarding inclusion during face-to-face education, there has been quite limited research on online education and inclusive practices. This exploratory case study of qualitative nature took place at a state university in the southeast of Turkey with three participants: a hard of hearing (HH) English as a foreign language learner who is a freshman enrolled at the English Language Education Department and his two instructors. Data were collected by means of semi-structured interviews, journals, and narrative reports. Interviews were conducted with the student about the challenges he had and instructors' practices during distance education, and with instructors about their general opinions towards IE and their online education practices regarding the inclusion of that student. Data were analyzed through thematic analysis. The analyses of student data revealed one major theme as "rechallenge" of an already challenging life and subthemes as nature of online education, instructors' practices, delayed/ limited feedback, and lack of interaction. Instructors' data revealed themes as beliefs and attitudes towards IE and need for training. Findings presented the challenges of online education for a HH pupil with significant implications, suggesting many solutions to the problems HH learners face, and raising public awareness on IE.

Keywords: Hard of hearing learner, higher education, inclusive education, online education, challenges

1. Introduction

Equal access to education has been a global concern (European Agency for Development in Special Needs Education, 2011). UNESCO (United Nations Educational, Scientific and Cultural Organization (2015) emphasizes the importance of IE in respecting the diverse needs, abilities, and characteristics of learners all over the world and in eliminating discrimination in the learning environments.

Despite efforts, IE is hard to implement and is not provided equally in the world (Pocock & Miyahara, 2018) and COVID-19 pandemic further increased the severity of this problem. This sudden shift to online education was a challenge for students and instructors, but especially for students with disabilities. As online and/or hybrid education will continue at tertiary level in Turkey, like in many other parts of the world, it is highly important to explore the challenges HH students and their instructors have.

1.1. Theoretical background

IE emphasizes the rights of all children with or without special needs to have equal access to the same social, cultural, and educational opportunities in the same educational settings (Ferguson, 2008). The history of IE dates to the Universal Declaration of Human Rights (1948) which stresses that everyone has the right to education. As a result of recent policy developments, regarding human rights and the provision of special education (SE) services (Florian, 2008), the spread of inclusive practices in general education systems have become more apparent. Studies in general have indicated that special educational needs (SEN) students in inclusive classes have a higher rate of learning in comparison to those educated in SE classes (Dessemontet & Bless, 2013; Kocaj et al., 2014).

In Turkey, the concept of IE is defined as providing equal learning opportunities to all the children and young with different cultural, social, and educational backgrounds (MONE, 2018). Students with disabilities were given separate places that were different from the learning environments by the 1900s. The idea that these students should be educated in a standard environment was embraced in the 1960s (Sarı et al., 2020). Although the term "inclusion" has been used in Turkish SE rules and regulations since 1983 (Sucuoglu & Kargın, 2010), significant progress has been made in the last five years. One explanation for this quick increase is that the Ministry of National Education of Turkey has made progress in SE services and gave priority to inclusion in elementary and secondary schools as educational policy (Melekoglu et al., 2009; Sucuoglu & Kargın, 2010). The number of students with disabilities in mainstream schools has increased significantly in the last ten years, which can be interpreted as a reflection of Turkey's embrace of a more comprehensive education philosophy (Tansel, 2020). However, enabling access to all students with disabilities is still an ongoing process (Melekoglu et al., 2009).

1.2. Inclusion of hard of hearing students

The establishment and development of laws and legislation which acknowledge these HH students' right to be educated with their hearing peers has changed the public views about deaf or HH students' inclusion (Borders et al., 2016). Therefore, deaf or HH pupils must attend general education classes regardless of the severity of their hearing loss.

HH students are found to have poorer academic qualifications and mostly excluded from university education by comparison with their hearing classmates (Gaberoglio et al., 2017). They face many challenges during inclusion, for example, they are subject to marginalization more than their hearing peers as they need assistance (Tinto, 2002). According to Karchmer and Mitchell (2003), HH students fall behind their peers in group work and seminars which are considered as the most difficult academic environments due to the need for engagement with others (Brennan et al., 2006). Bell and Swart (2018) list some challenges that undergraduate HH students may experience such as having trouble in writing assignments, especially when they rely on abstract thinking rather than practical observation; taking much longer to read, comprehend, and absorb material, reckoning on dictionaries, references, and tutors to check their understanding and lacking confidence in their academic performance. According to Brandt (2011), lecturers hide their faces during the lecture which makes lip reading hard for these learners. He also claims that instructors do not submit notes before the lecture, which poses trouble for HH learners. Hameed and Ain (2020) mention the challenges as obtaining admission support, diversified learning, social adjustment, and adapted evaluation techniques. HH students need support in mainstream education to participate in learning activities on equal terms with their hearing peers. Unrestricted communication and attitudinal barriers, individualized support based on valid assessments of learning needs, and modified curricula to accommodate deafness is required (Bell & Swart, 2018; Musengi & Chireshe, 2012).

During the COVID-19 outbreak, almost all countries made their first attempt at state-wide e-learning which has led new experiences and challenges for people in education (Doyumgaç et al., 2021; Karademir et al., 2020; Paudel, 2021). Without doubt, some students, particularly those with special needs, struggled more than others in terms of adapting to distance education (McMurtrie, 2020). According to the WFD (World Federation of the Deaf) report (2020, p. 1) “deaf people suffer higher and unique vulnerabilities... particularly when it comes to fair access to information and education” in a time of crisis. For HH students, access requires breaking down the linguistic barriers, which can only be done if all spoken or written data is presented in sign language (Haualand & Allen, 2019). Furthermore, online learning materials may not be tailored for HH learners, families may lack internet connection, and access to linguistic and visual input may be limited (WFD, 2020; 2021). On the surface, e-learning may support tactics that appear to be inclusive, such as offering fully captioned videos and written transcripts of classes, but in reality, the written language's complexity may be inaccessible to pupils (McKeown & McKeown, 2019). Studies on online education experiences of SEN students in the process of pandemic were quite limited (Meleo-Erwin et al., 2021; Mohammed, 2021; Yazcayı & Gurgur, 2021). Yazcayı and Gurgur (2021) investigated the process of pandemic and how SEN students maintained their learning via distance education provided by Turkish Ministry of National Education through a television channel called EBA and the official website of the Ministry. Some teachers were reported to have carried out online lessons and shared some documents through texting. However, SEN students could not follow the lessons on a regular basis, many of them could not attend online lessons, and were not provided with the feedback they needed. Mohammed (2021) discussed how the emergent e-learning system influenced deaf students' linguistic access in Trinidad and Tobago and revealed deaf learners faced distinct modality-specific challenges as well as challenges of institutional support, socioeconomic disparities, and the local deaf community's distinctive sociolinguistic history.

The present study aims to explore the challenges of online education during COVID 19 pandemic for a HH student and his two instructors' attitudes, beliefs, and practices regarding the inclusion of that student.

2. The study

This research is an exploratory case with a qualitative nature. It intends to investigate the events, situations, and acts the participants of the study are involved in. The matter is not only the physical events and behaviors that occur, but also how the participants in the study interpret these occurrences and how their interpretations influence their actions (Maxwell, 2008).

2.1. Context and participants

The context of the study is the English Language Education Department at a state university, in Şanlıurfa, in the Southeast of Turkey. Following ethics approvals, consent forms were obtained from the participants: Deniz, a freshman student, and his two instructors. To establish confidentiality, the researcher used pseudonyms for three participants. Deniz, with a hearing family background, is a HH pupil and has been using hearing aids since he was 5, when his hearing loss was first diagnosed. One of his instructors Zeynep teaches 'Writing Skills' course and Yılmaz teaches 'Reading Skills'.

2.2. Data collection and analysis

Data were collected by means of semi-structured interviews, journals, and narrative reports. A semi structured interview was conducted with Deniz about the challenges of online education. Semi-structured interview was preferred as it would allow the researcher to delve further into the subject of interest based on the responses of the participants (Creswell, 2003). Deniz also kept a journal for one month and submitted narrative reports.

Two interviews were held with the instructors, one about their general opinions towards IE and the other one about their online education practices regarding the inclusion of HH student. These data sources helped the researchers describe the different aspects of the case, increasing the richness and reliability of the data.

Thematic analysis was used as a technique for discovering, organizing, and analyzing patterns of meaning (themes) in a dataset as it would let the researcher analyze and make sense of common meanings and experiences on a dataset. Data were analyzed by means of pattern coding to condense a large amount of information into more manageable and concise units of analysis (Miles & Huberman, 1994).

The analyses of student data revealed one major theme and four subthemes as in Table 1.

Table 1. Findings from Deniz's data

Rechallenge an already challenging life
• Nature of online education • Instructors' practices • Delayed or limited feedback • Lack of interaction

Deniz indicated that as a HH student, his already “challenging” academic life was “rechallenged” by several factors in online education.

Nature of online education: Online education for Deniz was a source of distraction; he had serious problems with concentration which he attributes to the nature of online education.

My concentration is disturbed easily during online education; there is only the teacher’s image on the screen and PowerPoint presentations.

In one of his journals, he states that he has problems in maintaining full concentration, especially in English medium courses as ‘Reading Skills’ and ‘Writing Skills’ rather than Turkish medium courses as ‘Educational Psychology’. He attributes this fact to his incompetency in listening and comprehending in English.

My understanding during face-to-face learning is a far cry from online learning. I used an application, a sound booster that increases the sounds of the technological tools, but the quality of sounds was not enough. It was hard for me to follow.

Instructors’ practices: In the interview, Deniz referred to the practices of his instructors in online education.

In the beginning of the term, Yılmaz Hoca* did not share any additional material on the screen, he only read the slides so I could not understand much. That’s why I stopped attending his classes. I watched the recordings after the class. I paused the recordings again and again and slowed down the speed of video, 0,25 in general (the slowest possible level).

*Hoca is a term that means teacher/instructor in Turkish
Deniz mentions Yılmaz’s teaching practice. Even though he describes himself as a visual learner in his journals, he claims that seeing only “the instructor on the screen” did not meet his learning needs. He believes that he learns better when there is another supplementary visual material.

Zeynep had her camera off in the very first weeks of the term; then she changed her way of teaching when had knowledge about my special needs. Then I could lip-read and follow the notes on the screen. Gestures support my understanding a lot.

In several instances Deniz referred to lip-reading as an effective strategy he makes use of.

It is an inborn ability of mine. When I was a little kid, I used to watch films and understand what the characters were talking about.

To get the most out of the online learning experience, Deniz said he needed to see both his instructors’ and peers’ faces.

I cannot fully participate in discussions. The topics are not pre-set, and I don’t have a chance to join the session prepared. It is hard for me to follow the discussions as some of my friends keep their cameras off. They speak too fast; I have difficulty in catching. He also highlights the challenge of online exams, particularly in listening exams in which he needed more time than his hearing peers.

I feel most disadvantaged and incompetent in listening skills, especially online listening exams. I have difficulty in time management.

As a general reaction to the practices of the teachers, the most outstanding extract was the following.

I wish the online courses could be delivered with subtitles. In this way, it would be much easier for me to follow the lessons and benefit from them.

The university he studies uses the Zoom platform to give online lessons, and there is not such an opportunity for HH pupils on this platform, which deteriorates his learning process.

Delayed or limited feedback: In his journals, Deniz ascertains the feedback he gets from his instructors, comparing the feedback he gets in online education versus face-to-face education. The process makes the things worse for a SEN student like him.

Keeping in touch with my teachers is not that easy for me as I am an introvert person. During the pandemic, I made contact with them through emails. They replied to the mails in a few days. This is the worst part of online teaching. In face-to-face education, I could easily reach my teachers, during the class or break time. I cannot receive immediate feedback now. I loath to disclose my problems, that is why I could not talk to my instructors about it.

The above-mentioned problem may be a common issue for hearing pupils as well, but his introversion stemming from his hearing problem caused the process to get worse.

I have some speech problems such as stammering and pronouncing the “R” sound in Turkish and ‘sh’ ‘ch’ sounds in English correctly. My instructors did not notice my problem in online classes.

He states that he is weaker in speaking skills and his instructors could not recognize that because of distance education and give him the needed feedback which causes his learning process to deteriorate.

Lack of interaction: Deniz as a first grade L2 student started his education virtually. He feels isolated because of the lack of social interaction and cooperation. He states that the lack of interaction has a negative impact upon his learning. His instructor Yılmaz is not even aware of his needs. The researcher found out that he taught an 80-student class and was unaware of Deniz’s condition. Deniz did not disclose his needs due to the reasons he indicated below:

I did not talk to Yılmaz Hoca about my situation. I did not think that he would change his view of teaching; I am the only one in this class, why does he change his method?

The sense of isolation caused him not to reveal himself to the instructor, worsening his current situation and severely affecting his learning process. He makes another comparison between last year and this year, comparing his prep school days to this year. He claims that his teacher, Yusuf, and his practices were quite helpful last year.

I feel very shy especially when I meet someone for the first time. In the first class, Yusuf Hoca noticed my special need and we had a small talk in his office. He advised me to come prepared to the classes and before each class he shared his notes, audio scripts and other course materials with me. He changed my place and seated me in the front row. Although that course was a nightmare for me, I passed it thanks to the warm and empathetic attitude and support of him.

The preceding excerpt demonstrates the importance of instructors' ideas and attitudes toward SEN pupils. The core aspect of inclusion is instructors. He was able to overcome his greatest worry, which was his lack of listening and speaking abilities, thanks to the good relationship he had with his instructor. Distance education brought forth the issue of not being able to establish rapport. For a HH learner who has always felt isolated, it is even tougher.

Data collected from the instructors revealed two themes: instructors’ beliefs and attitudes towards IE and the need for IE training.

Beliefs and attitudes: Instructors were asked about IE in general and their attitudes towards SEN students. Zeynep is aware of her position’s cruciality, however, she has some hesitations

about the right approach. She ascertains that the learner's social and physical environment may have an impact on the success of inclusion. She believes the significance of considering the needs of her students. When she is asked about Deniz, she asserts:

I do not think a student with SEN is something negative. These students make an extra effort; if we need to do something extra in return for their efforts, this will contribute us, teachers... make us pleased.

She admires Deniz's efforts and is eager to assist him in any way she can. Her positive attitudes regarding Deniz, as well as her views about IE, are evident in her actions.

When he has a question, he uses the chat box of Zoom. I already use presentations and visuals in my online classes, and I share my resources. He does well in my classes. She claims that she considers the needs of her students, and that her statements on this issue are consistent with Deniz's. She does not use any extra materials or sources as to his learning needs. His other instructor, Yılmaz also believes the necessity of inclusive practices.

I think IE emphasizes the importance and role of all components of education in the socio-cultural development of the individual. It is necessary for students to develop both in-class and out of class behavior patterns.

Despite the importance he gives to IE, regarding having a SEN student in his classroom as positive, Yılmaz does not know Deniz's unique needs.

Having SEN students in my class will increase the responsibility of me and other students in the class and will enable us to act more carefully and attentively. As educators, we will have a close relationship with such students and try to help them more.

If he had known about Deniz's demands, his methods would have been different, and he might have formed a better relationship with him, as shown in the above excerpt. He is aware of his responsibilities as an instructor of a SEN pupil. Deniz's claims about his online education experiences are consistent with those of Yılmaz.

Need for Training: Both participants did not have any pre- or in-service training on IE and did not know how to deal with a HH student. Both were willing to have such training as they felt "limited" in their practices.

To be honest, I had not felt such a need before, but I would like to receive training to learn how to best approach a student with SEN. (Zeynep)

I wish to participate in such training, but I have not had a chance so far. (Yılmaz)
Deniz is their first SEN student and to have effective interaction with him they felt emergent need of IE training.

3. Discussion and conclusion

The main purpose of this study was to explore the challenges of online education for a HH English as a foreign language student and his two instructors' attitudes, beliefs, and practices regarding inclusion. The detailed content analysis demonstrated that Deniz's already challenging life was rechallenged by online education which was a new practice for the educational landscape all over the world. His challenges were interpreted through taking the instructors' beliefs, attitudes, and inclusive practices into consideration. Deniz found online education to be a source of distraction having serious concentration problems. HH learners generally indicate poorer attention span than hearing learners (Marschark et al., 2001). Deniz quit attending online classes because of his instructors' practices and tried to make up for the classes by listening to the tapes, reducing the video speed. Speech delivered at a slower pace

is easier to comprehend than speech delivered at a faster pace (Nasim et al., 2019). Deniz remarks Zeynep's courses are interactive and claims to have trouble in keeping up with the pace of the course and participating the discussions as there are no predetermined subjects. Interviews with HH students showed that there are many barriers to classroom discussion such as "rapid rate of discussion, rapid turn taking, rapid change of topics, the high number of speakers involved in the discussion and more than one student talking at a time" (Saur et al., 1986). Fuller (2004) asserts that the high pace of the lecturers' speech during lectures makes it difficult for HH to participate in class discussions. Deniz needs to see his instructors' and friends' faces in addition to materials like a PowerPoint slide or a word document to get the most out of online classes. "The greater a hearing loss, the more a person tends to rely on vision for understanding speech" (Nasim et al., 2019).

In online teaching, instructors and students' meaningful interaction makes it more fruitful. Since face-to-face interactions are nearly impossible, students should be given a sense of security to keep them motivated in academic activities from home. Online education makes it much harder for a SEN student which is proved in the present study with the case of Deniz as he repeatedly asserts social assimilation he has faced. According to Scheetz (1993), HH pupils are not socially integrated, and they may feel lonely as they are unable to easily join their friends because of communication difficulties. They may feel helpless and avoid joining the activities.

A certain gap was realized between the instructors' ideals and reality. Instructors were found to have a certain level of knowledge about IE but did not have any training and experience which caused them to respond Deniz's needs weakly. Instructors had positive attitudes towards him and were eager to help him throughout the process. Deniz stated to benefit most from Zeynep's classes who used visuals as well as making her visible to all learners, sharing her materials on the screen. His instructor's practices contributed to his learning that proves the instructor's importance in inclusion process. Another important fact suggesting the teacher's value in inclusion is Deniz's previous listening and speaking instructor who helped him through preparatory classes. His practices like establishing a good rapport with him, sharing the course materials, listening to tape scripts before the classes helped him overcome his biggest fear in listening and speaking skills. It is clear to assert that our findings approve the previous findings on teachers' importance in inclusive practices (Yuknis, 2015).

Knowledge about SEN students gained through formal studies during pre- and in-service training is another key aspect in fostering teachers' attitudes in inclusive policy. Many mainstream education instructors enroll in training programs to consolidate their SE expertise. Crispel and Kasperski (2019) suggested that not just SE instructors should have access to this information; rather, all teacher-education programs should include courses IE enabling courses. The scholars proved that after finishing their SE training, the respondents indicated a shift in their attitudes as well as their capacity to implement inclusion in their classrooms. The present study reveals the participants' lack of inclusive training and their wish for such training and underlines the need and value for professional development programs on IE.

To cultivate educational quality in classrooms so that all students benefit from IE requires a complete endeavor including students, teachers, university administration and Higher Education Council. Even if it appears complicated and challenging at times, what remains

consistent is a respect for all pupils' learning and a desire and willingness to better cater to their needs. Universities must provide necessary and appropriate support to students with disabilities once they have been accepted and registered, in order to ensure that these students have equal access to learning and hence a fair chance at academic achievement. An urgent call to action is needed for the stakeholders such as university administrators, lecturers, and students.

3.1. Recommendations

The present study appears to be a rare one conducted to explore the online education challenges for a HH student in higher education in Turkey. The study sheds light on the issue, handling it as two sides of a coin, discussing both the student and instructors' perspectives which triangulate the data and increase the validity of the research.

Based on the findings, we would like to make some suggestions to promote inclusive practices during online education:

- Understanding and embracing them with their differences and treat them considering their needs
- Attending professional development courses to expand their knowledge and awareness of how to give proper support for HH students in their classes
- Enabling other students to have information about the deaf/HH student
- Being accessible to meet with students one-on-one, and email should be their major form of 'out-of-class communication
- Using as many visual materials as possible while teaching
- Making sure all audio-visual resources have subtitles and that other students' questions are repeated and answered in class
- Provide electronic versions of detailed notes well in advance to enable for pre reading of content, and make glossaries of new and complex terminology available before it is taught in class
- Turning on camera, using gestures and mimics while teaching
- Sharing presentation screen with the learners, making sure that everyone in the classroom that ask for the floor is visible
- Providing the course context as text
- Providing subtitles while teaching by making use of some online applications
- Providing additional time depending on the difficulty they had in online exams held within the scope of distance education
- Preparing future teachers/instructors on this issue through training, seminars, and conferences in addition to assisting them through their professional development so that they will be more knowledgeable and confident in implementing inclusive programs.

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References

- Bell, D., & Swart, E. (2018). Learning experiences of students who are hard of hearing in higher education: Case study of a South African university. *Social Inclusion*, 6(4), 137-148.
- 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 (Advances in Special Education, Vol. 31)* (pp. 65–94). Emerald Group Publishing Limited. [shorturl.at/apEW0](https://doi.org/10.1080/13603116.2019.1600590) Crossref.
- Brandt, S. (2011). From Policy to Practice in Higher Education: The experiences of disabled students in Norway. *International Journal of Disability, Development and Education*, 58(2), 107- 120.
- Brennan, M., Grimes, M., & Thoutenhoofd, E. (2006). Deaf students in Scottish higher education. *Coleford, Gloucs: McLean Publishing*.
- Creswell, J. W. (2003). A framework for design. *Research design: Qualitative, quantitative, and mixed methods approaches*, 9-11.
- Crispel, O., & Kasperski, R. (2019). The impact of teacher training in special education on the implementation of inclusion in mainstream classrooms. *International Journal of Inclusive Education*, 1-12. <https://doi.org/10.1080/13603116.2019.1600590>
- Dessemontet, R. S., & Bless, G. (2013). The impact of including children with intellectual disability in general education classrooms on the academic achievement of their low-, average-, and high-achieving peers. *Journal of Intellectual & Developmental Disability*, 38, 23–30. [Taylor & Francis Online], [Web of Science ®], [Google Scholar].
- Doyumgaç, I., Tanhan, A., & Kiymaz, M. S. (2021). Understanding the most important facilitators and barriers for online education during COVID-19 through online photovoice methodology. *International Journal of Higher Education*, 10(1), 166-190.
- European Agency for Development in Special Needs Education. (2011). Participation in Inclusive Education – A Framework for Developing Indicators, Odense. Denmark: European Agency for Development in Special Needs Education.
- Ferguson, D. L. (2008). International trends in inclusive education: The continuing challenge to teach each one and everyone. *European Journal of special needs education*, 23(2), 109-120. <https://doi.org/10.1080/08856250801946236>
- Florian, L. (2008). Inclusion: special or inclusive education: future trends. *British Journal of Special Education*, 35(4), 202-208. <https://doi.org/10.1111/j.1467-8578.2008.00402.x>
- Fuller, (2004). Incorporating disabled students within an inclusive higher education environment. *Disability & Society*, 19(5), 455-468.
- Gaberoglio, C. L., Cawthon, S., & Sales, A. (2017). Deaf people and educational attainment in the United States: 2017. National Deaf Center on Postsecondary Outcomes.

- Hameed, A., & Ain, Q. (2020). Challenges Faced by Higher Education Institutions in Including Students with Hearing Impairment. *Journal of Inclusive Education*, 4(1), 13-28.
- Haualand, H., & Allen, C. (2019). Deaf people and human rights. World Federation of the Deaf and Swedish National Association of the Deaf.
- Karademir, A., Yaman, F., & Saatçioğlu, Ö. (2020). Challenges of Higher Education Institutions against COVID-19: The Case of Turkey. *Journal of Pedagogical Research*, 4(4), 453-474. <http://dx.doi.org/10.33902/JPR.2020063574>
- Karchmer, M. A., & Mitchell, R. E. (2003). Demographic and achievement characteristics of deaf and hard-of-hearing students. *Oxford handbook of deaf studies, language, and education*, 38, 21-37.
- Kocaj, A., Kuhl, P., Kroth, A. J., Pant, H. A., & Stanat, P. (2014). Wo lernen Kinder mit sonderpädagogischem Förderbedarf besser? Ein Vergleich schulischer Kompetenzen zwischen Regel- und Förderschulen in der Primarstufe. [Where do students with special educational needs learn better? A comparison of achievement between regular primary schools and special schools]. *Kölner Zeitschrift für Soziologie und Sozialpsychologie*, 66, 165–191. [Crossref], [Google Scholar]
- Marschark, M., Lang, H. G., & Albertini, J. A. (2001). *Educating deaf students: From research to practice*. Oxford University Press.
- Maxwell, J. A. (2008). Designing a qualitative study. *The SAGE handbook of applied social research methods*, 2, 214-253.
- McKeown, C., & McKeown, J. (2019). Accessibility in online courses: understanding the deaf learner. *TechTrends*, 63(5), 506-513. <https://doi.org/10.1007/s11528-019-00385-3>
- McMurtrie, B. (2020). Students without laptops, instructors without internet: How struggling colleges move online during Covid-19. *Chronicle of Higher Education*, 66, 27.
- Melekoglu, M. A., Cakiroglu, O., & Malmgren, K. W. (2009). Special education in Turkey. *International Journal of Inclusive Education*, 13(3), 287-298. <https://doi.org/10.1080/13603110701747769>
- Meleo-Erwin, Z., Kollia, B., Fera, J., Jahren, A., & Basch, C. (2021). Online support information for students with disabilities in colleges and universities during the COVID-19 pandemic. *Disability and Health Journal*, 14(1), 101013. <https://doi.org/10.1016/j.dhjo.2020.101013>
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. sage.
- Mohammed, N. U. D. (2021). Deaf students' linguistic access in online education: The case of Trinidad. *Deafness & Education International*, 1-17. <https://doi.org/10.1080/14643154.2021.1950989>
- Musengi, M., & Chireshe, R. (2012). Inclusion of deaf students in mainstream rural primary schools in Zimbabwe: Challenges and opportunities. *Stud Tribes Tribals*, 10, 107–116. <https://doi.org/10.1080/0972639X.2012.11886648>

- Nasim, O., Fahad, M. S., Ahmad, K., Khan, S., & Shah, D. (2019). Lip reading as reinforcement for speech reproduction in deaf children with hearing aids. *Journal of Medical Students*, 3(1-2).
- Paudel, P. (2021). Online education: Benefits, challenges, and strategies during and after COVID-19 in higher education. *International Journal on Studies in Education*, 3(2), 70-85. <https://doi.org/10.46328/ijonse.32>
- Pocock, T., & Miyahara, M. (2018). Inclusion of students with disability in physical education: a qualitative meta-analysis. *International Journal of Inclusive Education*, 22(7), 751-766. <https://doi.org/10.1080/13603116.2017.1412508>
- Sari, T., Nayir, F., & Kahraman, Ü. (2020). A Study on Inclusive Education in Turkey. *Journal of Education and Future*, (18), 69-82. <https://doi.org/10.30786/jef.642954>
- Saur, R. E., Layne, C. A., Hurley, E. A., & Optan, K. (1986). Dimensions of mainstreaming. *American Annals of the Deaf*, 325-330. <https://doi.org/10.1353/aad.2012.1023>
- Scheetz, N. M. (1993). Orientation to deafness. Boston: Allyn & Bacon.
- Sucuoglu, B., & Kargin, T. (2010). İlkogretimde kaynastırma uygulamaları [Inclusion practices in elementary schools]. Ankara: Kök Yayıncılık [Kök Publication].
- Tansel, Y. (2020). An Analysis of the National Legislation in Terms of Inclusive Education in Turkey. *European Journal of Educational Sciences*, 7(2), 49-69. <http://dx.doi.org/10.19044/ejes.v7no2a4>
- Tinto, V. (2002). Enhancing student persistence: Connecting the dots. Retrieved September 16, 2014.
- UNESCO. (2015). Incheon Declaration and Framework for Action for the Implementation of Sustainable Development Goal 4. Paris: Author
- World Federation of the Deaf. (2020). Statement on equality & non-discrimination during the global COVID-19 pandemic.
- World Federation of the Deaf. (2021). Position Statement on educational rights for deaf learners during the COVID-19 pandemic and beyond.
- Yazcayir, G., & Gurgur, H. (2021). Students with Special Needs in Digital Classrooms during the COVID-19 Pandemic in Turkey. *Pedagogical Research*, 6(1). <https://doi.org/10.29333/pr/9356>
- Yuknis, C. (2015). Attitudes of pre-service teachers toward inclusion for students who are deaf. *Deafness & Education International*, 17(4), 183-193. <http://dx.doi.org/10.1179/1557069X15Y.0000000003>