The Use of Information and Communication Technology for Special Needs Students with Hearing impaired: Teachers' Point of View

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Abstract

ICT in education as a powerful force for boosting the modernization of education. The use of ICT in education lends itself to more student-centered learning settings. ICT for education refers to the development of information and communications technology specifically for teaching and learning purposes. Besides, ICT in education involves the adoption of general components of information and communication technologies in the teaching and learning process. Eventually, the teacher's role in providing learning using ICT has provided many achievements for students, especially for hearing impaired students. Therefore, the researcher wants to find out the role of the teacher behind the success of a student, seen from the benefits and the challenges they face. Thus, this research aims to find out the benefits of using ICT for special needs students with hearing impaired as perceived by the teachers, and the challenges of using ICT for special needs students with hearing impaired as perceived by the teachers. A qualitative research design was employed to answer the research questions. Three teachers

who teach hearing impaired students contributed as the participants in this research. The data were gathered by using interview. The findings of this research show the four benefits that is the teachers are more motivated to teach; the students understand the material better; ICT eases the teaching and learning process, and ICT saves more time, energy, and budget. Furthermore, there are four challenges, that is the ICT tools are inadequate and error when used; the Wi-Fi connection is unstable; the teachers have a low capability to operate the ICT tools; and the students get distracted when learning with ICT.

Keywords: technology, ICT, teaching hearing impaired students, benefit in teaching hearing impaired students, challenges in teaching hearing impaired students

Introduction

Technology is no longer becoming an unfamiliar thing in this age. Everyone needs to know, use, and work with it. Technology provides all the facilities needed by human beings and has a great influence on every aspect of one's life, including how they communicate and how they gather information. Nowadays, the teaching and learning process is made easier by the appearance of technology.

Technology cannot be separated from the field of education, since education and technology are two items that are equally important and mutually beneficial. The evolution of the field of education seems never to have run out. Learning also changes according to evolving times and needs of the society, (Muchamad, 2018). It can be confirmed that almost all the schools in Indonesia use technology nowadays.

Using ICT and education will help all students including students with special needs. This can all be used by all, so there are no variations or gaps. ICT is a way of equality between ordinary students and special students as each may use the ICT to the full. There is a particular ICT used for students with special needs, since not all students with special needs need to use ICT as well. Nonetheless, ICT gives all the students the same opportunity to learn, particularly for students with special needs. The ICT also makes learning easier for the students. When viewed by students with special needs, they will be inspired to learn and engage during the course (Nordini, Yunus, & Zaharud, 2015). Also the use of ICT actually makes the students 'special needs especially hearing impaired.

Additionally, ICT has been commonly used in students with special needs. It is clarified that the use of ICT has expanded widely across all elements of education, including the education of special needs students (Gardner, 2018). One research conducted by Bonna and Unwin (2010) showed that ICT would support students with special needs significantly.

Teachers applying ICT to hearing impaired students, however, can face many challenges. As Yusuf, Daniel, Small, and Ab Aziz (2014) have noted, teachers lack ICT skills and know-how. Besides, the limited resources often make the instructor use the same approach to be taught for special needs with their pupils.

The researcher is also interested in taking up the subject on this issue so the researcher knows how to use hearing impaired students with special needs. The researcher would like to explore how the views of the teachers on the application of ICT for hearing impaired students including the advantages and challenges that teachers face.

Methodology

Qualitative approach is used in this research as the research design. Creswell (2012) stated that qualitative approach in research explored an information based on participant's point of view. Similarly, the result of gathering the data were in the form of words from participants' point of view (Creswell, 2012). With this study the descriptive qualitative research design suit. The researcher investigated the real events that occurred in one of Kulon Progo's special schools, relying on the perspective of the hearing-impaired teachers. The qualitative empirical research

focused on who, when, why and where the phenomenon occurred (Kim, H., Sefcik, J. S., & Bradway, C, 2016).

This research was conducted in one state of special school in Kulon Progo. The researcher had some reasons why she took this place. First of all, that special school is one of the best special schools in Kulon Progo, with almost all the special needs of students coming there. That special school also has an accreditation A. It can be explained that the school itself is a favorite for students with special needs. Second, that special school has already achieved a lot, students have also won some competitions, and both students and teachers are interested in research. Third, this special school provides facilities for the implementation of ICT for their teaching and learning processes. The other reasons are based on the experience of the researcher that the special school already has a high technology facility, particularly in the ICT program.

There were three participants in this research. The name had been changed in term of pseudonym names such as Alfa, Bella, and Caca. There were several criteria in selecting the students to participate in this research. First, participants should have at least three years of experience teaching hearing impaired students using ICT. This means that participants are already experienced in teaching ICT for hearing impaired students. Second, teachers must use ICT to teach hearing impaired students.

In gathering the data, the researcher used in depth interview to all of the participants. In this research, there were some steps done by the researcher. First, the researcher

produced her own interview guideline on the subject of the research. Second, the researcher has set out the criteria to get the participants involved in this research. Third, on the basis of the criteria, the researcher contacted the participants through WhatsApp. The next step was that the researcher asked the participant's agreement whether or not they agreed to participate in this research. All participants agreed to be interviewed and the researcher asked the participants for their availability. The researcher made an appointment to the participants concerning the time and place of the interview.

The researcher used Bahasa Indonesia in an interview because it was the first language of the participants. The researcher then used the cell phone to record the results of the interview. For each participant, the interview took 20-30 minutes. The final step was to analyze the data. The researcher carried out transcription, member checks and coding for analysis of the data.

Findings and Discussions

The Benefits of Using ICT for Teaching Hearing Impaired Students

The teachers are more motivated to teach. All the participants had the same views about it. Alfa, Bella, and Caca said that "it [the use of ICT] makes me more enthusiastic when teaching". In support of this argument, Nordin et.al (2013) argued that teachers are becoming more enthusiastic about teaching because students are also passionate about learning. The other study found that the use of ICT has a positive impact on both teachers and students in terms of their motivation for teaching and learning.

ICT eases the teaching and learning process. All the participants also had the same views about it. It [ICT] makes it easier for teachers to deliver the material, make it easier for students to focus on the material, etc. It was even mentioned many times during the interview session. For example, the same idea was mentioned three times by Alfa. He said, "ICT eases the *Kegiatan Belajar Mengajar (KBM)*, the learning process," "ICT helps teachers to control students. To support this argument, Baglama, Haksiz and Uzunboylu (2018) argued that the use of ICT means that teachers do not always use sign language to explain the material to students. This study also believes that ICT also helps students to understand better, and that teachers also feel more helped.

The students get understand the material better. Increasing students 'understanding is triggered by the use of ICT that teachers use to explain the material. The explanation of the material using ICT makes students more enthusiasts and will automatically make them more quickly understand the material provided by the teachers. ICT also makes the material easier to accept. Ghavifekr et al., (2016) said that one of the benefits of ICT is becoming a tool for teaching and learning, making it easier for students to understand what they learn.

ICT saves more time, energy, and budget. Participants indicated that they do not need to print the material, just show it in the LCD, and that the students will also have more understanding. It will automatically minimize the use of paper and the budget. Teachers also don't need to explain more, because the picture / video will tell you more. Drigas and Ioannidou (2013) said that if teachers can make good use

of ICT for their teaching and learning process, ICT will be cost-effective and will also save time and labor.

The Challenges of using ICT for Teaching Hearing Impaired Students

The ICT tools are inadequate. For this argument, all the participants have the same views. They feel the lack of facilities and infrastructure to teach ICT. Sometimes, the teacher uses private tools to teach. This is due to the lack of tools that can be used. The same finding has also shown that inadequate computer equipment and classrooms are the serious issues that have arisen as challenges for teachers and students in the teaching and learning process (Zaharudin et al., 2011).

The Wi-Fi network is instable. The same idea related to Wi-Fi connection was said by all the participants. They said their school doesn't have a stable connection. A Wi-Fi connection sometimes appears and disappears again. It made them feel difficult to access the Internet. This claim is backed by Salehi and Salehi (2012) who argued that insufficient technological support and lack of Internet connectivity is one of the causes of the difficulties of teaching ICT to students, making it impossible for ICT to get into the curriculum.

Teachers have a poor capacity to use ICT devices. Participants also described the difficulties of using ICT for teaching hearing impaired students. The lack of ability to use ICT devices goes not only to teachers, but also to students. Not all students learn and understand the capabilities of ICT devices. This claim is supported by a study by Abuzinadah, Malibari and Krause (2017) which found that there is a high

percentage of teachers and students who have little knowledge of computer and technical resources.

Students are distracted by learning with ICT. Education say it's hard to get their students back to a normal state that focuses on education, so they only like ICT and don't pay attention to the teacher.

Conclusion and Recommendation

The three teachers at one state special schools in Kulon Progo, the sample of this study, have benefits and challenges in using ICT for teaching and learning process for hearing impaired students. This based on the little observation and informal conversations during the researcher's experiences. There are three participants in this research, namely Alfa, Bella, and Caca. Furthermore, the names have been changed into pseudonym names in order to keep the privacy of the participants.

The aim of this research was to find out the point of view of teachers in the use of ICT for hearing impaired students. The aim of this research was to identify two research questions, namely the benefits of using ICT for hearing impaired students and the challenges of using ICT for hearing impaired students based on the teacher's point of view. The results were gathered by interviewing three ICT-implementing teachers for their teaching and learning process for hearing impaired students. This research was conducted at one of the special schools in Kulon Progo. Thus, the conclusion of these research findings addressed the two research objectives. This research used qualitative research method and descriptive qualitative as the tools to gather the data.

The researcher collected the data to answer the first question about the benefits of using ICT for hearing impaired students based on the perception of teachers. The researcher has identified four points of benefit. These four points are: (1) Teachers are more motivated to teach; (2) ICT facilitates the teaching and learning process; (3) Students get a better understanding of the material; (4) ICT saves more time, energy, and budget.

In addition, the researcher identified six points in order to answer the second research questions that are the challenges of using ICT for hearing impaired students based on the teacher's point of view. These four points are: (1) ICT tools are inadequate and error when used; (2) Wi-Fi connections are unstable; (3) teachers have a low capacity to operate ICT tools; (4) Students are distracted by learning with ICT.

In this research, there are recommendations for some parties namely teachers, the next researchers, schools.

To the teachers. Teachers are suggested to make learning using ICT more interesting. Students are expected to pay attention to the teacher and not be distracted by ICT. In addition, teachers can adjust the way they deliver the material if the ICT tools do not work accidentally. In addition, teachers are expected to join the training and workshop to learn more about ICT tools so that they are not out of date.

To the next researcher. The next researcher suggested identifying the strategies that can be used by teachers by implementing ICTs for hearing impaired students. The

next researcher also suggested that they could use the other technique to gather data, for example by using observation so that the findings would be more diverse.

To the school. Based on the results of the research, the school suggested that, due to the benefit and usefulness of ICT, notice should be given about the use of ICT for teaching and learning processes. In addition, the school suggested that the connection be fixed to make it easier for teachers to access the internet.

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