

## **Chapter Four**

### **Finding and Discussion**

This chapter explains and discusses the findings of the research. This research was conducted to explore two research questions that were presented in chapter one. The research questions were twofold; the first one was to find out what are the benefits of implementing the ICT for hearing impaired students as perceived by teachers, and the second one was to identify what are the challenges faced by the teachers in implementing the ICT for hearing impaired students. The result of this research is presented based on the interview with three participants. The following section discusses these findings with a more detailed explanation.

#### **Research Findings**

The research finding was based on the teachers' point of view in the use of ICT for teaching hearing impaired students. In collecting the data, the researcher used an interview to get the result of the point of view in implementing the ICT for hearing impaired students. The researcher interviewed three hearing impaired teachers at one of the special schools in Kulon Progo. To keep the privacy, the name had been changed in term of pseudonym names such as Alfa, Bella, and Caca. These three teachers had taught English for more than three years of experience and they usually use ICT for their teaching and learning process for hearing impaired students. The findings were divided into two such as the benefits and the challenges in the use of ICT for hearing impaired students based on teachers' point of view.

## **The Benefits of Using ICT for Teaching Hearing Impaired Students**

After conducting the interview, there were four benefits from the use of ICT for teaching hearing impaired students as perceived by the teachers. These four benefits are: the teachers are more motivated to teach; ICT eases the teaching and learning process; the students understand the material better; and ICT saves more time, energy, and budget. All the benefits will be explained below.

**The teachers are more motivated to teach.** The first benefit by using ICT for teaching hearing impaired students is teachers' motivation. The interview revealed that the participants claimed that the use of ICT improved their motivation to teach. When the researcher asked the reason why the teachers felt more motivated to teach using ICT, they said that ICT made their teaching and learning process become easier. This is in line with their answers on interview as follows. Alfa stated, "it [the use of ICT] makes me more enthusiastic when teaching (P1.1.8)". It is also emphasized by Bella who said "so, the teachers will be motivated in teaching and learning process because of the use of ICT (P2.1.5)". Bella added that with ICT and without ICT, it will be different, students will be more excited, more active, so teachers will also be more motivated to teach. Caca, also mentioned the same thing, she even said it twice to point out that ICT makes her more motivated and excited while teaching. Caca said, "because of ICT, I feel more enthusiast and more motivated (P3.1.2)". She emphasized in the other statement, "yes, with ICT, I feel more enthusiastic and motivated, (P3.1.4)".

**ICT eases the teaching and learning process.** The next benefits of using ICT for teaching hearing impaired students eases teachers' teaching and learning process. It [ICT] eases the teachers to deliver the material, ease them to handle the students to focus on the material, etc. They even mentioned it many times during the interview session. For example, Alfa mentioned the same idea three times. He said "ICT eases the *Kegiatan Belajar Mengajar (KBM)*, the learning process (P1.1.1)", "ICT eases the teachers to control the students (P1.1.9)", and he also said that "the materials are easier to be delivered than the traditional one (P1.1.11)". Bella also said, "ICT helps the teachers to deliver the material (P2.1.2)". Another participant namely Caca also mentioned that ICT helps her to explain the material (P3.1.1). She also mentioned that ICT shows more concrete for the material (P3.1.8). She said, "for example, if I am looking for the shape of plants, the plant parts are immediately visible, there is an explanation, and it makes the material more concrete (P3.1.7)".

**The students understand the material better.** The second benefits of ICT for teaching hearing impaired students is the understanding of the students. As Alfa said, "ICT makes the students understand the material better (P1.1.2)". It is emphasized by Bella, "ICT eases me to deliver the material and the students will be understand [the material] better (P2.1.6)". Caca also said that ICT eases her, and all the material is delivered well (P3.1.6). Caca also claimed that the use of ICT for her teaching and learning process make students' grade improved.

**ICT saves more time, energy, and budget.** The last benefits of ICT implementation for teaching hearing impaired students is save more time, energy, and budget. These three participants also have the same voice about this statement. The first participant namely Alfa starts with “it minimizes the papers usage (P1.1.6)”. He said that ICT can minimize the printout paper because he can directly show the material on laptop and LCD then the students can see it. Alfa also points out that ICT can save more time, do not need to print it out, just showing (P1.1.7). Another participant, Bella said “ICT saves more time (P2.1.3) and ICT saves more energy and more time to teach (P2.1.4)”. She explained that ICT makes the *Kegiatan Belajar Mengajar (KBM)* more efficient both energy and time with the specified target. Caca, third participant, also pointed out “I do not need to find the stuffs to explain, just showing the photos on Laptop, it saves more time and budget (P3.1.3)”.

### **The Challenges of using ICT for Teaching Hearing Impaired Students**

After conducting the interview, there were six challenges from the use of ICT for teaching hearing impaired students as perceived by the teachers. These four challenges are: (1) the ICT tools are inadequate and error when used; (2) The Wi-Fi connection is unstable; (3) The teachers have a low capability to operate the ICT tools; and (4) The students get distracted when learning with ICT. All the explanation will be described below.

**The ICT tools are inadequate and in a poor condition.** The first challenges faced by the teacher in the use of ICT for teaching hearing impaired students is the inadequate of ICT tools. All the participants agreed with that

statement. During the interview session, Alfa explained that ICT is very useful to be used as the tools that can help him to deliver the material, but due to the limited facilities in this school, he cannot use the ICT tools as maximal as he wants (P1.2.1). Bella also mentioned the same idea regarding the inadequate ICT tools in this school, she said “school supports ICT to be used here, but not all the ICT tools are available here (P2.2.2)”. She hopes this school can have full facilities that can be used for teaching using ICT. Besides, the interview revealed that the participants claimed that not only the inadequate tools of ICT, but also the tools of ICT are often in a poor condition. As Alfa said, “the tools that are related to laptops, with LCDs, can be used yesterday but today they can’t be used anymore (P1.2.4)”. The other participants namely Bella also said that the ICT tools are error when it is used for teaching and learning process. (P2.2.5).

**The wi-fi connection is unstable.** The second challenges faced by the teachers is Wi-Fi connection. All the participants agreed with this statement. As mentioned by Alfa as the first participant, he said that “the problems usually appear if the Wi-Fi network is not too good (P1.2.2)”. Besides, not much different from the opinions from the second and third participants, they also said same statements. As mentioned by Bella, she said “the challenges using ICT in teaching and learning process is the connection. It is because the Wi-Fi in this school is not too good to be used (P2.2.3)” and the third participants said “the challenges of using ICT is Wi-Fi. The Wi-Fi connection in this school often error while using (P3.2.2)”.

**The teachers have a low capability to operate the ICT tools.** The next challenges by using ICT for teaching hearing impaired students as perceived by the

teachers is a low capability. Bella and Caca agreed it. They even mentioned this thing for twice. It can be proven by Bella's statement, "for example, when I use the ICT tools and these are error, I will feel panic because I cannot do anything to fix it. I have not enough capability to fix the ICT tools, I only asked the other teachers to help me (P2.2.4)". In fact, she later admitted that she was unable to operate ICT (P2.2.6). However, the third participants mentioned that not only teachers who have a low capability to operate the ICT tools, but also for the students too. She said that the students also have a low capability to operate the ICT tools, (P3.2.7). Another important thing that we can pay attention is the outdated of the teachers for using the ICT tools. The researcher did follow up question about what the reasons of are outdated can be the challenges of their teaching and learning process with ICT. The participants said that it is because of their incapability to use the ICT tools, they have to learn more. Bella said, "I have to study again so that the knowledge of students and me in the same level, at the very least (P2.2.7)". Another participant also mentioned that "I have to be smarter; I have to learn so that what I give is not outdated (P3.2.4)".

**The students get distracted when learning with ICT.** This is the fifth challenges by the teachers. The second and the third participants agreed with this statement. The second participants mentioned it during the interview session. She said that the material will never be focused because the students are already interest with the other feature on ICT tools such as searching the unimportant thing, typing irregularly, and etc. (P2.2.1). Another participant namely Caca said, "if the teachers explaining some materials, the students cannot be focused on the material, but they

can be focused on how they can type in ICT tools, without giving notice to the teachers' explanation (P3.2.6)".

## **Discussion**

ICT in the field of education nevermore become a new thing. By using ICT, it can give a benefits and also the challenges that come up in the education system especially for the teachers. ICT has been widely used in many regular schools and in special school which were the setting of place in this research. Here, the researcher will provide a discussion in the use of ICT for teaching hearing impaired students as perceived by teachers' point of view.

### **The Benefits of using ICT for Teaching Hearing Impaired Students**

The researcher found four benefits of using ICT for teaching hearing impaired students as perceived by the teachers. Based on the research, the first benefits faced by the teachers is the teachers are more motivated in teaching. The teachers said that teaching with ICT make the students more enthusiast to accept the material that has been given by the teacher. Besides, the more motivated students, the more motivated for the teachers for teaching. One of the participants, Bella said that the use of ICT in teaching and learning process makes both students and teacher touch the benefit of it. In addition, the teachers and students become more motivated, and for the graph of student grades is further increased. To support this argument, Nordin *et.al* (2013) stated that the teachers become more enthusiastic about teaching because students are also passionate about learning. The other study revealed that the use of ICT gives a good impact to both teachers and students related to their motivation for teaching and learning. It is explained by Liu and Hong

(2007), their study revealed that technology makes the teaching and learning process get on fire because the teachers are enthusiast for teaching, and the students also do the same.

The other benefits faced by the teachers in the use of ICT for their teaching hearing impaired students is the students get understand the material better. The increasing of understanding of the students is triggered using ICT that is used by teachers to explain the material. The explanation of the material using ICT makes students more enthusiastic and will automatically make them more quickly understand the material provided by the teachers. ICT also makes the material easier to be accepted. Other than that, the use of ICT in their learning can raise their grades in the lesson, as said by Caca as the third participant. To espouse this argument, Drigas et al., (2005) revealed that the use of ICT for hearing impaired students makes the teachers can deliver the material for better and more thorough understanding. The other study also revealed the same voice about this statement, it comes from Ghavifekr et al., (2016), they said that one of the benefits by using ICT becomes a tool for teaching and learning process, make the students understand more easily what they learn.

The next benefits in the use of ICT for hearing impaired students as perceived by the teachers are ICT eases the teaching and learning process. All the participants agreed with this argument because they are all helped by ICT. Starting from the material are easier to be delivered that the traditional one, it eases the teachers to monitoring the students, more concrete, and also more complete. To support this argument, Baglama, Haksiz and Uzunboylu (2018) said that the use of



ICT makes the teachers not to always use sign language to explain the material for students. This study also believes that ICT also makes students more understanding and teachers also feel more helped. The other study also has the same finding in the usefulness of ICT for teaching hearing impaired students. This study comes from Drigas and Ioannidou (2013), they revealed that ICT intervention tools help both teachers and students to support their teaching and learning process.

The last benefits in the use of ICT for teaching hearing impaired students faced by teachers is about it saves more time, energy, and budget. The participants mentioned that she/he does not need to print out the material, just showing in the LCD, and the students will be more understand too. It is automatically will minimize the paper usage and the budget. The teachers also do not need to explain more because the picture/video will tell more. This argument emphasizes by the study from Johnson et al., (2016) who stated that “in some ways, ICT can be helpful by saving teachers the time and effort”. They also stated that, the technology may make the teaching experience easier and more enjoyable. This argument also supported by Drigas and Ioannidou (2013), they said that if the teachers can use the ICT for their teaching and learning process properly, ICT will hold the cost and also saving the time and labors.

Based on the explanation above, the use of ICT for hearing impaired students is really needed considering some of the arguments above. Apart from teacher satisfaction in teaching, students also get a good impact with the use of ICT. With a good understanding of the material, how to deliver the material, and

wisdom in using ICT, it is hoped that it will make the world of special education for the hearing impaired better.

### **The Challenges of using ICT for Teaching Hearing Impaired Students**

The researcher found five challenges of using ICT for teaching hearing impaired students as perceived by the teachers. Based on the research, the first challenges faced by the teachers is the ICT tools are inadequate. All the participant has the same views for this argument. They feel the lack of facilities and infrastructure to teach using ICT. Sometimes, the teacher uses private tools to teach. This is due to the lack of tools that can be used. This argument is supported by the study from Nordini et.al (2015) who revealed that the most challenges of teaching with ICT is the inadequate computer equipment. The same finding also showed that the inadequate computer equipment and classroom/labs are the serious thing that came up as the challenges for the teachers and students in teaching and learning process, (Zaharudin et al., 2011).

The other challenges came up in the use of ICT for teaching hearing impaired students is the Wi-Fi network is unstable. All the participants said the same idea related to the Wi-Fi connection. They said that their school does not provide a stable connection. Sometimes, Wi-Fi connection appears and disappears again. It made them feel difficult in accessing the internet. This argument is supported by Salehi and Salehi (2012) who stated that inadequate technical support and lack of internet access is one of the causes of the difficulty of ICT being taught to students and it makes the ICT becomes difficult to run into the curriculum. Not only one study which explained that the unstable Wi-Fi network became the serious

problem in using ICT for teaching hearing impaired students. It is emphasized by Mishra, Sharma and Tripathi (2010); Empirica (2006), their study also showed that the Wi-Fi connection still become the universal problem and still growing regarding to the use of ICT for teaching and learning process.

The next challenges are about the teachers have a low capability to operate the ICT tools. The participants found it becomes the challenges of using ICT for teaching hearing impaired students. The participant mentioned that if the *Kegiatan Belajar Mengajar (KBM)* ongoing and suddenly the tools become error, then they will be confused to overcome it. They also say that the limitations in operating ICT make them stuck using only that device. Another participant also stated that the lack of capability to operate the ICT tools not only goes to the teachers but for the students too. Not all the students know and understand about the feature of the ICT tools. This argument is supported by the study from Abuzinadah, Malibari and Krause (2017) who revealed that there is a high percentage of the teachers and students who had little knowledge about the tools of computer and technology. Pelgrum (2001) also stated that the lack of competencies of the teachers nowadays become the main barrier in education.

The other challenges of using ICT for teaching hearing impaired students is about the ICT tools are error while teaching and learning process. The teachers use ICT for teaching and learning process, but sometimes it becomes more serious when the tools of ICT become error. The error tool when teaching can occur at any time, even if yesterday the tool can be used, but in the other time, the tool is difficult to be used. To support this argument, Bingimlas (2009) found that besides of the lack

of competencies, lack of connection, the technical support also become a barrier to teach. The tool used could be fine but could be not fine at a different time. Ghavifekr et al., (2016) also showed the same voice related to this statement. They found that the schools' computer and the other tools in the school are out of data and need to be repaired.

The other challenges faced by the teaching in the use of ICT for teaching hearing impaired students is about the students get distracted when learning with ICT. The teachers feel difficult to make their students back to the normal condition which focus to the teachers, because they just enjoy themselves with ICT and don't pay attention to the teacher. However, this argument has a contradictory with the study from Baglama, Haksiz and Uzunboylu (2018) who revealed that the use of ICT makes students more focus and reduces distraction. This contradictory arguments can be explained that the students in Baglama's study, they are already familiar with using ICT, while in this research, the students are still lack of using ICT in learning process, they also not too capable to operate the tools, then it makes the students more curious and try some features while learning process.

Based on the five ideas that appeared above, it can be concluded that the use of ICT for teaching hearing impaired students still has many challenges. The challenges were obtained from three points, it starts from the school, students, and even the teacher itself. However, from some of these challenges, we can take from the positive side that ICT can still be the best tool to use if the three points above are mutually sustainable. Therefore, the use of ICT for hearing impaired students is still very useful and must be continued.