THE USE OF ICT IN ELT: CHALLENGES AND SOLUTIONS (A STUDY OF SD NU CEPOGO 01)

Anis Istirokhah Ayu Purnaningtyas[1], Noor Malihah[2]

[1,2]UIN Salatiga, Kota Salatiga, Indonesia,
[1]tyasanis1@gmail.com,
+628977777992

Abstract

In order to ease the students understanding and improve the innovation in teaching, teachers are trying to find best way in delivering material. One of the way is by maximizing the use of Information and Communication Technology (ICT). There are many challenges faced by teachers from many factors such as internet connection, device availability and compatibility and so on and teachers also have solutions as the temporary solutions. This research used qualitative method by selecting the respondent by demography, age, and graduation time. Spreading questionnaires and interviews also observation to the ICT use in the class. The validation of the data is using triangulation method where we compare 3 methods of collecting data and summarize the result. The author recommends that teachers make the challenges the opportunity for self-development. The schools are also recommended for having better and enough ICT tools as their facility.

Keywords: Continuing Professional Development (CPD); Information and Communication Technology (ICT) in English Learning and Teaching (ELT); Teacher Professionalism

Abstrak

Untuk memudahkan pemahaman siswa dan meningkatkan inovasi dalam pengajaran, guru berusaha mencari cara terbaik dalam menyampaikan materi. Salah satunya dengan memaksimalkan pemanfaatan Teknologi Informasi dan Komunikasi (TIK). Banyak sekali tantangan yang dihadapi guru dari berbagai faktor seperti koneksi internet, ketersediaan dan kompatibilitas perangkat dan lain sebagainya dan guru juga mempunyai solusi sebagai solusi sementara. Penelitian ini menggunakan metode kualitatif dengan memilih responden berdasarkan demografi, usia, dan waktu kelulusan. Penyebaran angket dan wawancara serta observasi penggunaan TIK di kelas. Validasi data menggunakan metode triangulasi dimana kita membandingkan 3 metode pengumpulan data dan membuat ringkasan hasilnya. Penulis menyarankan agar para guru menjadikan tantangan sebagai peluang pengembangan diri. Sekolah juga disarankan untuk memiliki fasilitas TIK yang lebih baik dan memadai.

Kata Kunci: Pengembangan Keprofesian Berkelanjutan; Teknologi Informasi dan Komunikasi (TIK) dalam Pembelajaran dan Pengajaran Bahasa Inggris; Profesionalisme Guru

Introduction

One of the most interesting developments in education over the past few decades has to do with "technology." even though the majority of studies concur that technology can be employed both as an instructional medium and as a cognitive support. (Baek et al., 2008).

In this era, we utilize Information and Communication Technology (ICT) on a daily basis. ICTs are utilized in many aspects of life, including social, economic, health, and education (Paramitasari, 2020).

Technology in education is crucial for developing critical 21st-century skills in addition to academic success. Students and teachers can communicate more easily thanks to collaboration and communication technologies, which foster teamwork and good communication skills that are essential in the workforce of today. Additionally, technology-exposed children acquire digital literacy, which gives them the capacity to evaluate and navigate the abundance of online information. (Dr. Lohans Kumar Kalyani, 2024).

Teachers are looking for efficient ways to use digital media to enhance student learning. They are trying their best to implement ICT in teaching English. With the advancement and adoption of technology, particularly in our digital age, the integration of ICT into education has become imperative (Sharma et al., 2024).

The potential benefits for integrating ICT into english language teaching and learning are involve improving educational standards, promoting the creation of innovative teaching strategies, facilitating immediate access to a variety of information, modifying learning styles, increasing flexibility in ELT activities, enabling teachers to employ or create engaging educational media, potentially lowering textbook and other educational costs, stimulating students' curiosity about what they are learning (R. D. W. Mustikasari & Norwanto, 2018) and inspiring students to learn (Fitria, 2023; Poudel, 2022).

The spread of ICT is still an expanding phenomenon (Alfarizi et al., 2023). It is not surprising that despite being a pioneering activity, there are many challenges to its integration in the educational system (Gyawali, 2020; Thumbarayan et al., 2023; Wensi Alka et al., 2023).

Information and Communication Technology (ICT) in teaching has also been used by the teachers of SD NU Cepogo 01. Since somw years ago in order to support the method of teaching and also improve the student's willingness and interest in learning. There are many kinds of activities and equipment used in the implementations of ICT. In SD NU Cepogo 01, the english teacher has implemented ICT in english langauge teaching (ELT) such as using quiziz application, Kahoot, YouTube, Google Form, Puzzle, etc. Not only that, they also use a projector and speaker to share screen and audio.

In using ICT in English learning, of course teachers face many obstacles. These constraints consist of internal and external, controllable and non-controllable constraints. In this study, the author is trying to get the insight from the teachers in term of challenges and

solutions experienced by the teacher in the implementation of ICT especially to understand the challenges and the solutions that has been done by the teacher.

ICT is one of supported activities by the technology involving information. The activities which included in ICT are collecting the data, processing, storing and presenting it. ICT use in SD NU 01 Cepogo is to present the material, use of variety applications, uploading the material through online, collaboration in Whatsapp and so on.

The potential benefits for integrating ICT into english language teaching and learning are involve improving educational standards, promoting the creation of innovative teaching strategies, facilitating immediate access to a variety of information, modifying learning styles, increasing flexibility in ELT activities, enabling teachers to employ or create engaging educational media, potentially lowering textbook and other educational costs, stimulating students' curiosity about what they are learning (R. D. W. Mustikasari & Norwanto, 2018) and inspiring students to learn (Fitria, 2023; Poudel, 2022).

Some studies on the use of ICT have been conducted by many scholars. It was reported that lesson objectives, activities, curriculum, subject policy, learners' various learning requirements, accessibility, and device availability to make decisions about how best to use ICT.

The use of ICT may result in some obstacles faced by teachers for examples the inadequate time to learn and use the ICT, unskillful teachers in using ICT (Fitri & Putro, 2021; Matra & Fitriana, 2022; Murray & Ward, 2019; Putu & Subudiasih, 2023).
There is also inhibiting factors in regards to media which is frequent blackouts in the area, lack of internet connectivity, and also the limitations of infrastructures, such as devices availability in the schools (Mariati, 2021; Muslem et al., 2018; Poudel, 2022; Salam et al., 2023). Beside the obstacles above, some researchers also find that ICT is helpful to facilitate the learning because it helps engage the class, make the class more enjoyable, fosters learner autonomy, and inspires students to learn (Matra & Fitriana, 2022). ICT in the classroom also beneficial to encourage innovative and collaborative teaching (Jatileni & Jatileni, 2018).

Method

This study attempted to focus on participants' perspectives, Mc Millan and Schumacher mentioned that the reconstruction of reality based on participants' point of view is the use of Qualitative research (Fithri Al-Munawwarah, 2014). Aside from that, Cresswell has also mentioned that the type of data in qualitative research are expressed as words. In this study, the data collected in the form of words during an open-ended questionnaire.

The present study was undertaken at SD NU Cepogo 01, Boyolali, Central Java. There are 2 english teachers and we asked them to be our respondents. They have been teaching english in this school for more than 2 years and experienced in the ICT implementation for their teaching. The validation of the data is using triangulation method where we compare 3 method of collecting data which are questionnaire, interview, and observation. The compiling data obtained from interviews, field notes, and documentation, with how to organize data into categories, break it down into units, synthesize, organize into patterns,

choose what is important and what will be studied, and make conclusions so that will be easy to understand by ourselves or others. Presenting data using narrative text or descriptions.

In order to combine the methods of triangulation, at first we did ask the teachers to complete the questionnaire, then we dig deeper the information through interview, and also we did collect the data and observation by knowing the applications we have been using for teaching, the availability of ICT equipment, etc.

Researchers in concluding the results of the research, we must be careful and thorough and use an existing framework of thinking developed. Draw conclusions by answering all questions research that has been done previously. The conclusion contains all the answers to the research questions and may also be missed, because as stated that problems in qualitative research are temporary and can be developed as the research progresses in the field. Therefore, Researchers used interactive model data analysis in this research which continues constantly until the data is completed and then described what the challenges are teachers face in using media learning along with solutions that can be used to overcome internal challenges.

Result and Discussions

Researcher has collected data on the challenges that teachers face when using media in learning English which are shown in the table 1:

Tabel 1
The Challenges in ICT Implementation in ELT SD NU Cepogo 1

No	Jumlah siswa
1	The Lack of an Internet Connection
2	Device Compatibility
3	Accessibility of Devices
4	Recurring Power Outages in The Area
5	No Application Completely Aligns with The Lessons
6	IT is Constantly Updated

Based on the table above, we can understand that the teachers have faced multiple challenges in implementing ICT in learning and teaching English such as The Lack of an Internet Connection, Device Compatibility, Accessibility of Devices, Recurring Power Outages in The Area, No Application Completely Aligns with The Lessons, IT is Constantly Updated. However, they also have informed some solution that the author will describe later on.

a. Lack of Network Connection

In the use of IT in teaching English, many applications or media require internet connection such as Quiziz, Kahoot, Youtube, Canva, Capcut, and so on. This has been a big challenge faced by the teachers, mostly in the area where they are in teaching practice area. This is mentioned by respondent 1:

"The problem is when there is no network or there is a power failure so learning with IT doesn't go well, sometimes you have to be willing to flee to another place to look for a signal". (respondent 1)

Techars still complain about the school's poor bandwidth and slow internet connection even after these amenities were installed. Respondent 2 mentioned that the challenge is when there is no network or there is a power failure in the teaching area, the activity doesn't work well and sometimes we must be willing to flee to another place to get better connection.

The same case has also been experienced by another respondent (respondent 2):

"The internet connection sometime is not stable; this has been a challenge which caused time wasting and is not effective". (respondent 2)

This finding is aligned with the study before that they found internet connection has become the challenge in using ICT for teaching and learning English and furthermore Mariati mentioned IT connection become the most challenging issue compare to other challenges such as time management, device availability, teacher confidence and lack of IT skills.

One interesting fact is that the finding is contradict to the study by Muslem, they found that 76.93% agree that the Internet is easily accessible and available at their school and it has not been a matter or challenge in the implementation of ICT in their teaching (Muslem et al., 2018).

b. Device Compatibility

Technology changes quickly so teachers must use teaching methods which are up to date. If the device is not up to date, some applications will be difficulted to be used. Device compatibility is also another big challenge in successful implementation of ICT in education. This is also experienced by respondent 2 she mentioned:

"I am hampered by an inadequate device so I cannot use several applications in learning in class". (1)

Not only from the teacher's side, but device compatibility also becomes challenge for the student's using ICT in learning English in the school where teacher practice their teaching. Another statement which shows the challenge about the compatibility of the device has also happened in the school below:

"Not only school infrastructure, not all devices owned by students are compatible for use in ICT-based learning". (Respondent 3)

This shows that not all the devices owned by students are compatible for use in the learning process, some applications cannot even be installed on their smartphones so that learning is hampered.

Traxler in 2010 found that student mobile phones or device is not for educational purposes. However, this study was already 14 years ago while the technology and method of teaching using ICT has been growing very rapidly and there was no further study about compatibility challenge using ICT in teaching and learning especially in English learning and teaching.

a. Device Availibility

The most innovative initiative English teachers have worked on so far involves integrating media technologies into ELT classes to increase student enthusiasm, integrated language proficiency, and the environment for self-learning. Aside from compatibility, availability of the device also has become a big challenge experienced by the teacher. Respondent 1 mentioned:

> *"The challenge of using IT is during PPL, where PPL schools, especially in the classroom, do not yet have basic technology for learning such as LCD projectors and speakers. So, in the future we must borrow at the office". (respondent 3)*

From the statement above, we know that the school has limited ICT tools which the teachers need to implement ICT in the class. The teachers will need to ensure that the device is not used by other teachers, and they will need to make appointments. The same issue was also experienced by other teachers in the schools.

> *"The challenge may be the limited school facilities. Because there is no LCD projector and speakers". (respondent 2)*

From the above 2 statements we understand that schools still lack basic ICT tools such as projectors and speakers.

b. Recurring Power Outages in The Area

Based on the experience in the implementation of ICT, electricity is a primary need. This is because many devices and internet needs are affected if the electricity goes out. The issue about electricity is experienced by the teachers.

> *"The challenge is that when the electricity goes out, we cannot use the computer lab or use existing ICT facilities". (respondent 1)*

The issue about power outage has been found out in the study before by Mariati in 2021, she found there were dominant challenges about electricity in some area due to some black out.

c. No Application Completely Aligns with The Lessons

Teachers will be able to adapt their lessons and learning activities through ICT integration (Mai, 2020). However, this inhibiting factor can be used as a strength for teachers in this revolutionary era.

Teachers usually look for applications that are interesting and easy to use in using ICT in English learning (Saranya & Saranya, 2022), but it turns out that teachers have not been able to find an application that can deliver certain material.

One of the challenges that we found is the limitation of the applications the teachers and students use, seems that there is no match application perfectly able to deliver the lesson without using any other applications.

This can be a struggle for teachers who have difficulty in preparing the material for this subject. One of the respondent said:

> *"The challenge I experienced was that I had to be required to use a platform that suited my learning process. "Sometimes one platform alone is not enough or is not suitable for the teaching and learning process in class, for example the Quiziz application which has digit limitations in writing answers, so I have to combine it with other applications, for example Google Forms". (respondent 3).*

From the statements above, we understand that the teacher needs to use multiple applications to deliver the lesson that it become a challenge in the implementation of ICT in learning and teaching English. This finding has never been found before and could possibly be material for study such as creating custom e-learning in schools, using custom applications, etc.

d. IT is Constantly Updated

In the history of humanity, science and technology have been playing a crucial role (Betz et al., 2023). Start from our ancestor's traditional technology to digital technology we use in our daily life. Technology are currently develops very fast every day along with advances in science (Asy'ary et al., 2023; Gov.uk, 2019). This is impactful to the implementation of technology in teaching and learning English. The teachers try to use media to explain material, they haven't gone too deep into one application, new learning media are available which also require teachers to implement and even collaborate with other applications or platforms. This has become a challenge experienced by the teachers. Especially if there are other challenges as mentioned before occurred. This will be double focus, and this can be a multiple problem that is quite difficult to deal with. One of the respondent mentioned below:

"IT developments are always being updated, making it a challenge to always want to be updated and know how to use it especially with the addition of other challenges". (respondent 2)

The challenge about the changes and development of IT in ELT and in development program has never been found before. This can help the teachers to find solutions if there will be researcher to focus on it.

By the finding of these challenges of course make the theory previously stated by Fitria, Poudel, and Mustikawati failed, where they said that ICT is promoting the creation of innovative teaching strategies, facilitating immediate access to a variety of information, modifying learning styles, increasing flexibility in ELT activities because based on the challenges we see they can not maximizing the ICT utilization well and improve the quality of teaching.

After collecting the challenges faced by the teachers, the author trigger to understand the solutions have been done by the teachers which are displayed in table 2:

Tabel 2

Solutions in Overcoming Challenges in ICT Implementation

No	Jumlah siswa
The Lack of an Internet Connection	Provide Private Wi-Fi Network
	Providing IT-based Learning Media Which Is More Easily Accessible.
	Changing Teaching Method
Device Compatibility	Use another application as an alternative
	Borrow A Compatible Device
	Survey Student and School Device Compatibility and Specs Before Deciding to Use A Particular Application
	Buy A New Device
Accessibility of Devices	Use Personal Devices

	Use The Device Interchangeably with Other Classes
Recurring Power Outages in The Area	Utilizing Personal Device Selecting Alternative Method
No Application Completely Aligns with The Lessons	Selecting Alternative Method
IT is Constantly Updated	Update the ICT Knowledge by Implementing the ICT in Teaching

Based on the table above can get better insight of what have been done by the teachers in facing the challenges based on their experienced. Teachers need to be prepared to swiftly adopt new ICT innovations. The suggestion is teachers also can update their IT skills by attending workshops, consulting with specialists, and closely following advancements in IT education in person or via YouTube.

This finding is different from the previous studies one of it is when there is no issue with the internet connections, the study before by Muslem contradict with this study, they found that 76.93% agree that the Internet is easily accessible and available at their school and it has not been a matter or challenge in the implementation of ICT in their teaching (Muslem et al., 2018). Where mustikasari found that the students get good feedback about the internet connection as well the teachers in the use of ICT in ELT (D. W. Mustikasari & Kusuma, 2024).

Conclusion

Over the past 10 years, teacher development has become a recognized field of research, and a lot of literature has been produced on the topic (Gyawali, 2020) According to the studies, a large number of teachers engage in various forms of professional development programs. Teachers still confront a lot of difficulties in class, both in the classroom and in the school where they get their teaching training.

This study aimed to determine the challenges and solutions in implementing Information and communication technology (ICT) in English Learning and Teaching (ELT) for the elementary school which is in SD NU 01 Cepogo Boyolali. There are various challenges they faced and the teachers has provided the solutions to overcome.

Regarding the nature of ICT contribution to the teaching-learning process, this study will provide essential information to educational policy makers and school administration. The innovation and its efficacy as a tool for enhanced teaching and learning this study will contribute to the growing knowledge base and twenty-first century generation about the use of ICT in Indonesian education.

References

Alfarizi, M., Widiastuti, T., & Ngatindriatun, N. (2023). Exploration of Technological Challenges and Public Economic Trends Phenomenon in the Sustainable Performance of Indonesian Digital MSMEs on Industrial Era 4.0. *Journal of Industrial Integration and Management*, 1–32. https://doi.org/10.1142/S2424862223500045

Asy'ary, M. L., Rini, S., & Kusumawati, E. R. (2023). Pengaruh Game Online terhadap Pemerolehan Bahasa Anak Sekolah Dasar. *Fondatia*, *7*(1), 27–40. https://doi.org/10.36088/fondatia.v7i1.2896

Baek, Y., Jung, J., & Kim, B. (2008). What makes teachers use technology in the classroom? Exploring the factors affecting facilitation of technology with a Korean sample. *Computers and Education*, *50*(1), 224–234. https://doi.org/10.1016/j.compedu.2006.05.002

Betz, U. A. K., Arora, L., Assal, R. A., Azevedo, H., Baldwin, J., Becker, M. S., Bostock, S., Cheng, V., Egle, T., Ferrari, N., Schneider-Futschik, E. K., Gerhardy, S., Hammes, A., Harzheim, A., Herget, T., Jauset, C., Kretschmer, S., Lammie, C., Kloss, N., … Zhao, G. (2023). Game changers in science and technology - now and beyond. *Technological Forecasting and Social Change*, *193*(August 2022), 122588. https://doi.org/10.1016/j.techfore.2023.122588

Dr. Lohans Kumar Kalyani. (2024). The Role of Technology in Education: Enhancing Learning Outcomes and 21st Century Skills. *International Journal of Scientific Research in Modern Science and Technology*, *3*(4), 05–10. https://doi.org/10.59828/ijsrmst.v3i4.199

Fithri Al-Munawwarah, S. (2014). Teachers' Perceptions on the Use of Ict in Indonesian Efl Learning Context. *English Review: Journal of English Education*, *3*(1), 1–11.

Fitri, Y., & Putro, N. H. P. S. (2021). EFL Teachers' Perception of the Effectiveness of ICT-ELT Integration During the COVID-19 Pandemic. *Proceedings of the International Conference on Educational Sciences and Teacher Profession (ICETeP 2020)*, *532*(532), 502–508. https://doi.org/10.2991/assehr.k.210227.086

Fitria, T. N. (2023). Using Information and Communication Technology (Ict) in the Education Sector: Opportunities and Challenges in English Language Teaching (Elt). *Teaching English as Foreign Language, Literature and Linguistics*, *3*(1), 9–30. https://doi.org/10.33752/teflics.v3i1.4038

Gov.uk. (2019). Defence Technology Framework. *Defence Science and Technology*, *September*, 1–56. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/830139/20190829-DTF_FINAL.pdf

Gyawali, Y. P. (2020). Challenges Associated with Teachers' Professional Development through Research-based Activities. *Researchgate.Net*, *November*.

https://www.researchgate.net/profile/Yadu-Gyawali/publication/346436939_Challenges_Associated_with_Teachers'_Professional_Development_through_Research-based_Activities/links/5fc1b379299bf104cf873468/Challenges-Associated-with-Teachers-Professional-Develop

Jatileni, M., & Jatileni, C. N. (2018). *Teachers' perception on the use of ICT in teaching and learning: A case of Namibian primary education. October*, 95. https://erepo.uef.fi/bitstream/handle/123456789/20609/urn_nbn_fi_uef-20181356.pdf?sequence=1

Mai, L. T. (2020). Benefits and Challenges to Integrate ICT in EFL Teaching and Learning Activities. *Journal of Research & Method in Education (IOSR-JRME)*, *10*(3), 46–50. https://doi.org/10.9790/7388-1003044650

Mariati. (2021). Analisis Faktor Penghambat dan Penunjang Pelaksanaan Pembelajaran dalam Jaringan (Daring) Pada Mahasiswa PPG Dalam Jabatan Mapel Akuntansi dan Keuangan Universitas Muhammadiyah Sumatera Utara. *Seminar of Social Sciences Engineering & Humaniora*, *2*(1), 348–359. http://jurnal.pancabudi.ac.id/index.php/scenario/article/view/1207

Matra, S. D., & Fitriana, S. (2022). *EFL student teachers' percieved knowledge on integrating ICT. 8*(2), 295–306.

Murray, K., & Ward, K. (2019). Attitudes to social media use as a platform for Continuing Professional Development (CPD) within occupational therapy. *Journal of Further and Higher Education*, *43*(4), 545–559. https://doi.org/10.1080/0309877X.2017.1378313

Muslem, A., Yusuf, Y. Q., & Juliana, R. (2018). Perceptions and barriers to ICT use among english teachers in Indonesia. *Teaching English with Technology*, *18*(1), 3–23.

Mustikasari, D. W., & Kusuma, L. A. (2024). *CALL Design Processes in the Indonesian and Australian Universities : Practical Advice on Co-Design Capabilities in the Post-digital Futures. 17*(1), 225–249. https://doi.org/10.18326/rgt.v17i1.225-249

Mustikasari, R. D. W., & Norwanto, N. (2018). Integrating information technology into Indonesian EFL curriculum. *MATEC Web of Conferences*, *205*. https://doi.org/10.1051/matecconf/201820500005

Paramitasari, A. (2020). The Advantages and Disadvantages of Using ICT In English Language Teaching. *Jurnal Pendidikan, Bahasa, Sastra Dan Linguistik*, *Vol. 1*(No.1).

Poudel, A. P. (2022). Information and Communication TechnologY in English Language Teaching: Some Opportunities and Challenges. *Journal of Comparative & International Higher Education*, *14*(4), 103–116. https://doi.org/10.32674/jcihe.v14i4.3874

Putu, N. I., & Subudiasih, M. (2023). *IN-SERVICE TEACHER CERTIFICATION PROGRAMME BY : ENGLISH LANGUAGE EDUCATION FACULTY OF ART AND*

LANGUAGE IN-SERVICE TEACHER CERTIFICATION PROGRAMME SKRIPSI Diajukan kepada. Nim 1912021014.

Salam, U., Wahdini, W., Surmiyati, S., Rezeki, Y. S., Riyanti, D., & Suthathothon, P. (2023). Teachers' challenges and strategies in using digital media in teaching English. *Journal of English Language Teaching Innovations and Materials (Jeltim)*, *5*(1), 49. https://doi.org/10.26418/jeltim.v5i1.63204

Sharma, L., S, M. K., Gupta, M. A., Gupta, U., & Jayaswal, M. P. (2024). *Digital Media Literacy Education And Social Development : A Study On The Need Of Digital Media Literacy Education Among The School Students Of Tonk District Of Rajasthan State In India*. *30*(2), 773–775. https://doi.org/10.53555/kuey.v30i2.2720

Thumbarayan, K., Kamaruzaman, F. M., & Omar, M. (2023). Issues and Challenges of Integrating Technology in Teaching and Learning Among Teachers in National Type Tamil School (NTTS). *International Journal of Education*, *15*(4), 1. https://doi.org/10.5296/ije.v15i4.21535

Wensi Alka, D, D., Khusna, K. A., & Golia, H. I. (2023). The Challenges in Teaching English Online to Young Learners: Teachers' Voices. *Child Education Journal*, *5*(1), 1–10. https://doi.org/10.33086/cej.v5i1.3687