ICT-Based Learning in New Normal Era: Viewed from Practice and Impact in ELT Classroom

Jumatul Hidayah
Institut Agama Islam Negeri (IAIN) Curup
hidayah_jumatul@yahoo.com

Prihantoro
Institut Agama Islam Negeri (IAIN) Curup
prihantoro@iaincurup.ac.id

ABSTRACT

The Covid-19 outbreak has caused a sudden transformation of learning from offline to online modes. Such a transformation raises the importance of ICT as an integral constituent of online learning. Hence, the present mixed-method study aimed to probe into the use of ICT in ELT and the perceived impacts of ICT use on students' betterment in learning. Eleven English lecturers from the State Islamic Institute of Curup were incorporated as the participants. The quantitative data on the two foci were garnered from a set of an online questionnaires, and the qualitative data were gathered using observations and interviews. This study revealed that the English lecturers used ICT for several pedagogical purposes, such as preparing materials, browsing materials for their lessons, preparing material presentations, and evaluating alongside giving feedback on students' learning. Subsequently, all lecturers perceived that ICT had positive, beneficial, and contributive impacts on students' betterment in learning especially in terms of enhancing students' growth mindsets, metacognition, and learning engagement. Further studies are expected to conduct psychometric analyses to examine the interplay among growth mindsets, metacognition, and learning engagement as latent variables within the circle of ICT use in ELT.

Keywords: ICT, impacts of ICT, growth mindsets, metacognition, learning engagement

INTRODUCTION

The outbreak of the COVID-19 pandemic unavoidably has resulted in disruptive changes in almost all sectors of human life including education (Fitri & Putro, 2021). In the field of education, the threat of COVID-19 has forced educational institutions to change teaching-learning

activities from offline platforms to online platforms. Face-to-face classes at all levels of education have to be suspended to avoid the spread of the disease. In this regard, many governments took measures to avoid spreading the virus and to ensure the continuity of the educational process (Coman et al., 2020).

In addressing the issues of face-to-face class suspension, various alternatives in maintaining the continuity of the educational process have been opted (Unidas & Nations, 2020). Within this framework, one of the most prominent options is maintaining education through online resources. Distance learning modalities which are mediated by Information and Communication Technology (ICT) provide ideal platforms to bring schools and learning processes closer to homes and students in a pandemic era (Lawrence & Tar, 2018). As technical tools and resources, ICT through the use of the internet and intranet becomes media to communicate as well as generate, transmit, store, and manage information (Oztemel & Gursev, 2018) in the teaching learning process during COVID 19 pandemic.

As far as the study of ICT is concerned, some findings have affirmed that ICT facilitate learners in their teaching-learning process. It provides rich and varied learning resources and materials. Additionally, ICT creates a fun and interactive classroom atmosphere (Alsaleem, 2013). Learning using ICT creates student-centeredness activities. ICT is more flexible, and it can also improve interaction Sustainability (Marinoni et al., 2020). Additionally, ICT accelerates students to gain and organize information (Ma et al., 2020). According to Apriani and Hidayah (2019), pupils can obtain a lot of knowledge at once because of the many types of technology that are employed. It is worth pointing out that ICT is also useful to expand the range of teaching tools. The internet enables communication between teachers and students in both synchronous and asynchronous ways, thus facilitating e-learning (Bryson & Andres, 2020). It is for that reason, that in COVID 19 pandemic era, ICT plays a crucial role in maintaining the continuity of the educational process.

However, the unexpected transition from offline platform to online platform mediated by ICT to a certain extent is the source of insecurity and apprehension for both teachers and students (Marchlik et al., 2021). Teachers suddenly are forced to teach under unusual circumstances which they have not prepared for beforehand. Within this situation, teachers need time to adjust to the new modality of online teaching.

Under the above circumstances, it is interesting to explore the use of ICT by English lecturers during the COVID 19 pandemic (New Era) in

which they have to shift from offline platforms to online platforms. A scientific exploration as the foregoing is critical since Indonesian English lecturers need some data-based references which address the complexities of the use alongside the impact of ICT in English teaching and learning. Therefore, this study specifically tries to investigate how English lecturers use ICT and the perceived impacts of ICT on students' betterment in learning. This study is guided by the following research questions: 1) how do English lecturers use ICT in the teaching and learning process in ELT Classroom? And 2) what are the perceived impacts of ICT on students' betterment in ELT Classroom?

THEORETICAL FRAMEWORK

ICT

ICT is an abbreviation for Information and Communication Technology, and it refers to a diverse range of technical tools and resources used to communicate as well as generate, transmit, store, and manage information (Oztemel & Gursev, 2018). These technologies consider the internet, computers, and broadcasting technologies such as radio, television, and telephone. However, because of the development of technology and demand, the internet and computer have gained more attention to be used as instructional tools in education compared to others. With ICT, web-based learning in second language teaching and learning has come to the fore especially in the English language as web-based learning provides the learners with a variety of hyperlinked multimedia documents and a variety of tools or programs that can support language teachers to integrate a variety of resources into the language classroom (Sher Ryn & SC, 2020). According to Sanjaya et al. (2020), the influence of ICT in all aspects of life, including education, cannot be overlooked nowadays. In the era of the Covid-19 pandemic, ICT integration is part of the 'new normal, as the teaching and learning process has gone online, thus, it is necessary for more research on teachers' practices of ICT use in the language learning classroom.

In addition, According to Asabere and Enguah (2012), information and communication technology (ICT) is the tools, facilities, processes, and equipment that provide the essential environment with the physical infrastructure and services for the generation, transmission, processing, storage, and distribution of information in all forms, including speech, text, data, pictures, and videos. ICT includes computers, computer-assisted language learning (CALL) software, office software (word

processing, presentation software, drawing tools, and so on), the internet–websites and downloadable software, and commercial course books. ICT also subsumes CD-ROMs, DVD players, mobile phones, electronic dictionaries, digital cameras and movies, DAT recorders, document cameras, data projectors, electronic dictionaries, and all examples of data storage devices. According to Livingstone (2012), ICT comprises school-specific technology (e.g., interactive whiteboards) as well as applications utilized beyond borders, whether official or informal (e.g., education games), and networked technology.

Lecturers' Practices of Using ICT in ELT

The use of ICT in the classroom teaching and learning process is essential because it allows instructors and students to operate, store, control, and retrieve data, in addition to promoting self-regulated and active learning (Ali, Haolader & Muhammad, 2013 as cited in Hussain et al., 2017). ICT-based learning involves a broader proclivity for more than merely in a single classroom, collaborative learning among learners and teachers. In contrast to the typical learning environment, for example, distance learning allows instructors and students to continue studying outside school hours (Hussain et al., 2017). The system assists teachers in planning and preparing classes, as well as design resources such as course content (Hussain et al., 2017). The rapid expansion of this system has sparked a learning revolution, as new technological breakthroughs in education have required a re-examination of new teaching methodologies and instruments.

The use of ICT in the classroom will result in a range of English content, situations, and pedagogical techniques. Educators have diverse perspectives on using technology to improve literacy. Some educators worry that recent advancements will fundamentally alter literacy education (Apriani, 2016). The use of information and communication technology (ICT) makes the English language environment more dynamic, adaptable, and inventive (Wen-Cheng et al., 2011). The use of computer technology in language teaching produces a learner-centered learning environment. It enables course administrators and teachers to adjust lesson presentation styles to encourage students with various interests, provides learning opportunities outside of the classroom, and is regarded to be more accommodating to individual needs and diversity.

Because students are digital natives, using technology in language education decreases teacher-centered comprehension and Language learning anxiety can be reduced by encouraging students to take risks and practice the target language (Huang & Hong, 2015). The good impacts of ICT for ELT are classified by Jayanthi and Kumar (2016) into the following

major categories: material availability, student attitudes, learner autonomy, authenticity, aiding teachers, student-centered, and self-assessment. The availability of a vast corpus of authentic materials, such as images, animation, audio, and video clips, promotes language presentation and practice. ICTs improve student attitudes and motivation. Students are highly motivated to learn a language because they have positive attitudes about language learning since they utilize a computer and learn in a stress-free environment. Furthermore, ICT promotes learner autonomy by allowing learners to take responsibility for their learning via the use of ICT tools. Students are allowed to select the content that best suits their learning preferences. In addition, ICT delivers actual circumstances and a real-world learning environment. Because ICTs provide a variety of facilities and teaching resources, EFL teachers only recommend and create these tools as supplemental teaching resources. In contrast to traditional learning environments, ICT promotes student-centered learning and teacher-student interaction. In terms of assessment, ICTs provide for the easy and successful evaluation of both receptive and productive abilities.

The instructor may choose and create appropriate resources to assess pupils' success in all abilities. Furthermore, when using ICT to aid foreign language training, the following impacts tend to be the most obvious: 1) the ability to flexibly alter educational materials based on conditions, learner requirements, and reaction; 2) ICT provides for the reaction to and utilization of recent/daily news, as well as access to legitimate content on the internet; 3) possibility of combining/using (basic) skills alternately (text and images, audio and video clip); 4) lectures become more entertaining and less mundane, increasing student engagement; and 5) ICT allows you to concentrate on one aspect of the lesson at a time (Bozkurt & Uygan, 2020).

Students' Betterment Enhanced by ICT

ICT provides a greater chance for students to enhance their capacity for their language learning, it is essential to integrate ICT with methods and techniques of English language teaching and learning. Furthermore, according to UNECSCO (2000) as cited in Unidas and Nations (2020), one of its goals, which is 'Education for all goals', stated that improving all aspects of education such as its quality and ensuring an excellent education for all, encourages the involvement of ICT in education, particularly in English language learning and teaching. There

is no doubt that the role of ICT in English language teaching has positive effects on the process of learning and teaching.

The following points show how ICT plays an important role in language. First, it creates the ability to easily modify educational materials to situations, learners' needs, and replies. Second, it provides for reaction to and usage of current materials, as well as access to real-world items on the internet. Third, it allows you to combine/use four fundamental skills integration. Fourth, it also enables focus on one specific aspect of the lesson (pronunciation, vocabulary, etc.) (Uzun, 2016)

The impacts of ICT on English students' betterment in learning have been proven by many studies across many aspects of learning betterment. Chouthaiwale and Alkamel (2018) in their study revealed that the use of ICT espouses English learners to acquire modernized learning skills, in which the students become more skillful at dealing with vast internet-based learning resources. Khanh (2021) conducted a review study and highlighted that the use of ICT has been scientifically proven, in either experimental or phenomenological ways, to enhance students' English speaking skills. Metruk (2019) confirmed in his study that the use of ICT, such as English movies and TV programs, paves the way for helping English learners improve their listening skills. Huang and Hong (2016) experimented and scientifically proved that the use of ICT through the application of flipped learning affects students' English reading skills. According to Apriani et al. (2021), students have a good attitude toward the deployment of ICT since it may help them study. Also, Bakeer (2018) in his study indicated that the use of ICT, e.g. social media as a learning tool, can enhance students' English writing skills. The aforesaid studies have confirmed that the use of ICT affects the improvement of English students' betterment in learning in terms of both learning skills and English skills per se.

RESEARCH METHODOLOGY

This research used a concurrent-embedded mixed-method design to scientifically work on two research foci, namely the use of ICT in ELT and the perceived impacts of ICT use on students' betterment in learning. 11 English Lecturers from the State Institute of Curup were engaged as the participants. There were a couple of criteria assigned as the indicators for selecting the lecturer participants. First, they were the permanent and active lecturers in the English department of the State Institute of Curup. Second, they were experienced lecturers who had been teaching English across several subjects. Third, they were all voluntarily willing to be

recruited as the participants in this study. The researchers deployed a set of valid and reliable questionnaires to collect the quantitative data on the use of ICT and the perceived impacts of using ICT on students' betterment in learning. Concerning the questionnaire about the use of ICT and the impacts of using ICT, the researchers reviewed several related papers having been published by Alsaleem (2013), Marinoni et al. (2020), Rapanta et al. (2020), Rinekso et al. (2021), and Sher Ryn and SC's (2020). The reviews resulted in three coded indicators of using ICT which could be developed into 32 items. Subsequently, two indicators were also coded that represented the impacts of using ICT, and such indicators could be developed into 18 items. The total items were 50 items. In detail, the first indicator was concerned with the use of ICT materials (4 items). The second indicator was associated with the portrayal of teaching and learning activities using ICT (11 items). The third indicator pertained to the use of ICT according to its functions or purposes (17 items). The fourth indicator represented several possible perceptions to be or not to be agreed by respondents (7 items). The fifth indicator represented some possible benefits of using ICT during teaching and learning to be negotiated by respondents (9 items).

The 50 items had been validated using both content and construct validity principles, and their reliability had been examined. In reaching the content validity, three experts, doctoral lecturers of research method, educational technology, and English education, were involved to help evaluate the items. The researchers revised some items as suggested by the validators. Getting sufficient agreement from validators, the researchers continued to examine the construct validity by letting 10 English lecturers from another university help fill in the questionnaires. The piloting data were computed using the *Bivariate Pearson* formula, and the computation indicated that the items were valid because the value of *r* exceeded the r-table of 0.4438. The reliability of the questionnaire was pursued by computing the items using the *Cronbach Alpha* formula. The computation revealed that the *Alpha* was 0.82 higher than 0.7. The foregoing result indicated that the items were reliable.

For collecting the qualitative data on ICT use, the researchers applied an observation technique. The observations were undertaken online in a way that the researchers joined every online class held by the English lecturer participants. Subsequently, the qualitative data on the perceived impacts of ICT use on students' betterment were garnered using interviews with all lecturer participants.

The researchers used two techniques for analyzing the data. In processing the quantitative data, the researchers used a descriptive-statistic technique to present and distribute the data solicited from the online questionnaire. Subsequently, the qualitative data obtained from both observations and interviews were analyzed interactively by adopting Miles et al. (2014) model. This model worked on four interrelated components, the so-called data collection, data condensation, data display, and conclusion drawing. As explained in prior, the qualitative data were collected from observations and interviews. The raw data of observations and interviews were further condensed by grouping them according to the emerging themes. The process of data condensation in some ways could also be called the data coding process. The researchers also applied an inter-coder reliability technique to reach relevant coded themes. Drawing upon O'Connor and Joffe (2020), inter-coder reliability is of importance due to constructing good coding, which is done collaboratively among the researchers. We, the researchers in this study, firstly codified the raw qualitative data respectively. Our respective results of data codification were further compared and analyzed with one another to reach the most relevant coding results as the final themes to be presented. Subsequently, in terms of data presentation, the qualitative data were presented in the form of tables containing data codification results, data illustration, interview transcripts, data interpretation, and both argumentative and theoretical discussions. Lastly, the discussed data were concluded in a comprehensive and representative way.

RESULTS & DISCUSSION

The Use of ICT in ELT

The quantitative data on the use of ICT in teaching-learning indicated that most of the lecturers used ICT to prepare materials for their teaching activities. Six out of eleven respondents involved in the study several times used ICT to browse material for their lessons. Additionally, half of the respondents often used ICT to prepare a presentation for their lessons. This suggests that the respondents of the present study have awareness of using ICT as resources for them to browse, download and prepare teaching materials. This data echoed what Alsaleem (2013) had mentioned that ICT provided rich and varied learning resources and materials.

Interestingly, the respondents of this study also used ICT as media to evaluate students' learning. Seven out of eleven respondents several times used ICT to give feedback on students' works. The descriptive data

in this discourse can be seen in the following histogram is presented in figure 1.

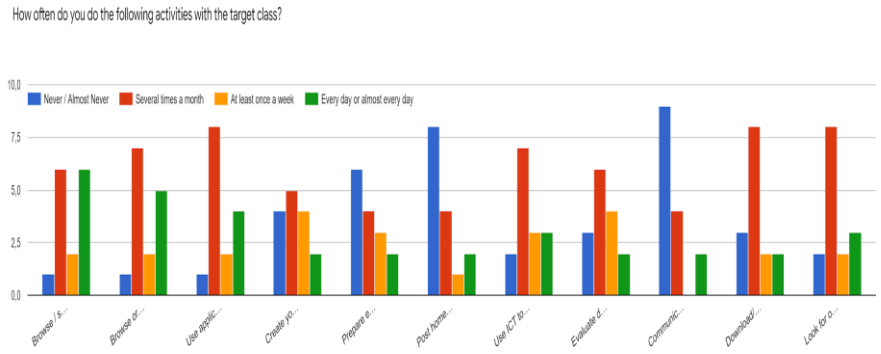

Figure 1. Histogram of Lecturers' Use of ICT in Teaching and Learning

In terms of teaching materials that the respondents used, the data from the questionnaire indicated that most of the respondents made use of ICT to convey material that they had searched on the internet. Furthermore, they also relied on existing online materials from established educational sources. The descriptive data in this discourse can be seen in the following histogram as displayed in figure 2.

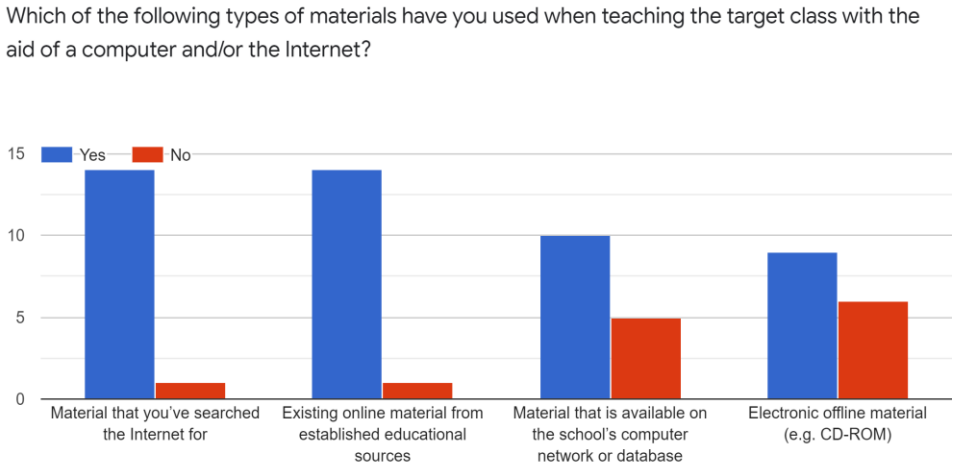

Figure 2. Histogram of the Material Types Used during Teaching with ICT

When using ICT in learning activities, the data gained from the questionnaire indicated that ICT facilitated more learner-centered learning activities. The respondents conveyed that, a lot of times, they used ICT to make students learn autonomously and also work cooperatively in a group. This is relevant to Marinoni et al. (2020) postulation that ICT creates learner-centeredness. The descriptive data in this discourse can be viewed in the following histogram presented in figure 3.

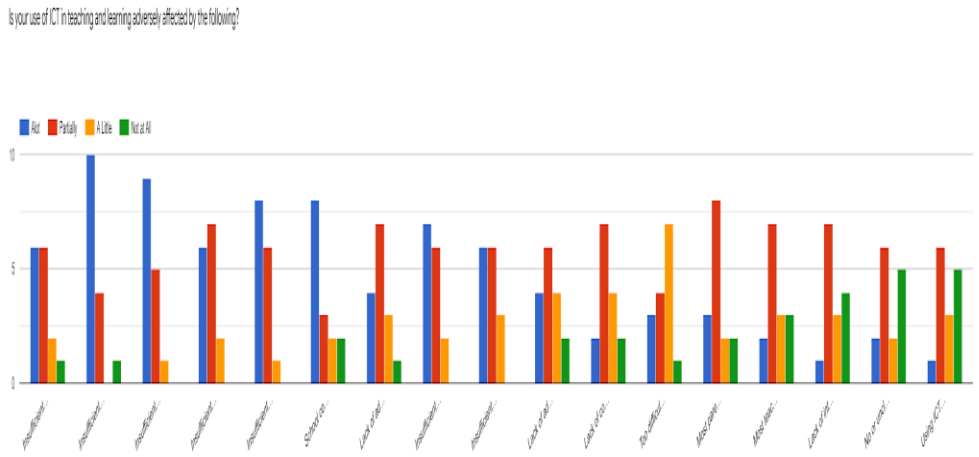

Figure 3. Histogram of Functional Use of ICT

It was also found from the data that very often the lecturers used ICT to present, demonstrate, and explain the materials to the whole class. ICT allowed the lecturers to deliver materials and to transfer knowledge to students who could not meet physically, as has also been postulated by Rapanta et al. (2020).

The qualitative data garnered from observations confirmed the survey data on the use of ICT in teaching and learning processes. The observational data were codified as presented in table 1.

Table 1
Coded Observational Data on the Use of ICT

No	The Use of ICT	Portrayals
1	To prepare materials	• Designing the material presentation using PPT • Making use of G-drive to prepare easily accessed materials according to students' needs

		• Making use of Google Scholar to map theoretical resources of teaching and learning materials
2	To browse materials	• Making use of YouTube to browse the ready-made materials
3	To download materials	• Using computers and smartphones to download materials from the internet
4	To present materials	• Using videos and films to present materials
5	To evaluate students' learning	• Using an e-rater website to evaluate students' English accuracy

As displayed in table 1, **first**, the English lecturers used ICT to prepare materials. As observed, there were a couple of activities demonstrating the use of ICT in the sense of preparing materials. For example, to represent others having similar classroom staging, the English-speaking lecturer used the PowerPoint application to prepare the presentation of English-speaking materials. His slides were constructed in a theory-to-practice way. The theoretical materials were constructed to acquaint students with the socio-cultural nature of English speaking, and the practical materials were set in the form of video clips showing how natural English-speaking activities were taking place. It could be interpreted that the use of ICT, such as PowerPoint, alongside instilling other ICT sources such as videos, could help the English-speaking lecturer prepare his material presented in a well-managed way. The use of ICT as portrayed in the English-speaking lecturer's classroom echoed the usefulness of ICT delineated by Kobis and Tomatala (2020). In their study, they emphasized that ICT paves the way for educators to be more creative and innovative, especially in terms of preparing attractive lessons. That is why Seferoglu and Celen's (2020) study took the meaningfulness of ICT use more seriously by addressing the professional development program based on ICT to help educators be capable of designing learning materials oriented towards students' interests. An exciting learning medium for increasing students' learning attitudes and motivation while also enhancing students' English abilities (Apriani, 2020).

Another portrayal of the use of ICT to prepare learning materials was codified by the English lecturer who taught an English grammar subject. This lecturer used Google Drive as an ICT tool to prepare a set of easily accessed materials that she had considered relevant to students' needs. In this way, the lecturer had already collected a couple of handouts and modules that she had compiled resting upon the curricular standards. Those materials were then uploaded to her Google Drive. She proceeded to share the Google Drive link with her students alongside telling students some instructions for what to do with the link. She took into account that this way could save time and could mediate an effective delivery of materials. After the students downloaded the materials she already shared, the students could open the materials using their own devices, and the lecturer could scaffold the students by giving detailed explanations about the materials. An interesting point shown by the English grammar lecturer here is that the use of ICT helps her to make an effort to prepare learning materials that conform to the students' needs. This echoes Sher Ryn and SC's (2020) study which highlighted the benefits of using ICT. One of which is to make a convincing case for the educators to conceptualize and design materials in a student-centered fashion.

The other portrayal of the use of ICT to prepare learning materials was depicted by the English academic writing lecturer. As observed, the English writing lecturer made use of Google scholar as an ICT source to map theoretical resources for teaching and learning materials. During online observations, the writing lecturer was teaching the academic writing subject with complex theoretical and practical contents. To help him find it easier to prepare material, for example, the material about rhetorical moves for writing a research background, the lecturer had made use of Google scholar to collect as many articles addressing rhetorical moves as possible. He then made a mind map to draw the lines and create a conceptualization. He proceeded to make his module about rhetorical moves alongside the research background examples for the ease of students' understanding when accessing his materials. The academic writing lecturer in this sense has done something slightly different from Firmansyah et al. (2020) in their study. Firmansyah et al. (2020) in their study exemplified an innovation in which, to help prepare desired materials, educators can create or develop an ICT-based application. However, the English academic writing lecturer in the present study made use of the existing ICT resource to help him design his material in the form of a module packed into a PDF file for ease of dissemination via students' social media.

The **second** data codified from observations demonstrated that the English lecturers used ICT to browse learning materials. As to represent others, the researchers highlighted the portrayal of the activity of a lecturer who taught English phonology subjects. During observations, this phonology lecturer was teaching the material about allophones whose orientation extended to guiding students to comprehend the pronunciation differences of one single phoneme, such as d/ed sounds and s/es sounds. It was clear that the lecturer had already browsed his video presentation from YouTube because the video he presented via zoom was identical to a YouTube-driven source. Browsing relevant material from a ready-made video provider is a good solution because a great number of videos on YouTube if selected considerably, had already met the standardized indicators of the desired material. This is what was done by the English phonology lecturer. A previous study has also depicted a similar notion about the use of ICT to browse materials. For example, a study conducted by Rinekso et al. (2021) demonstrated that their participants made use of ICT, such as the Google search engine, to browse materials. The phonology lecturer in the present study has done a good way by making use of YouTube to browse his materials because audio-visual aids, such as videos, are the best mediator for learning phonological input. The capability of searching or browsing teaching materials is part of the pedagogical competence every educator has to possess. That is why Kumar Jena et al. (2020) in their study took this case seriously by providing training for educators to be able to browse a bunch of relevant materials using ICT tools. The capability of browsing effective materials is of paramount importance considering the more complex the subjects are taught, the more in-depth and critical the materials demand.

The **third** data codified from observations demonstrated that the English lecturers made use of ICT to download materials. To represent others with similar staging, the researchers highlighted a lecturer who taught an English evaluation subject. She made use of her computer and smartphone to download the already-made materials from varied websites she had considered relevant due to the conformity of material content and the curricular indicators. She used her computer and smartphone for downloading the materials because she considered that the downloaded materials could be easily disseminated to students via WhatsApp groups. What she did illustrates Hinostroza's (2018) argumentation that the usefulness of ICT can exceed the horizon of

classroom boundaries, in which learning processes can be held effectively across distances while still maintaining the quality of learning *per se*.

The **fourth** data gathered from observations indicated that the English lecturers used ICT to present the materials. As to represent others doing a similar thing, the researchers would like to portray activities delivered by an English literature lecturer. As observed, the English literature lecturer utilized drama videos and drama-based films to present his English literature materials. He selected audio-visual aids as such to help students not only understand the materials but also get the emotional sense of drama that later on the students would perform. Audio-visual aids are indeed effective because such aids provide all multimodal components which can help students get engaged more deeply either cognitively or emotionally in the materials they learn. The effectiveness of multimodal resources in teaching English has been confirmed by prior studies. For instance, Raisanen (2020) highlighted the effectiveness of multimodal resources to help their participants enhance their competencies in English as a lingua franca. Unsworth and Mills (2020) addressed the use of multimodal resources to help English students be more engaged in the processes of meaning-making during English interactions. An intriguing learning medium for improving students' English skills as well as developing students' learning attitudes and motivation (Apriani, 2020). Also, Jiang et al. (2020) highlighted the benefits of multimodal resources to empower minority Chinese students who learn English.

The **fifth** data codified from observations showed that the English lecturers utilized ICT to evaluate students' learning. To represent others doing a similar thing, the researchers would like to highlight an activity undertaken by an English creative writing lecturer. The creative writing lecturer made use of an e-rater website to assess and evaluate students' written works, especially in terms of word choice, grammar, and mechanics. This website was useful for making assessment processes effective because the feedback given was accurate and automatic. ICT helped this lecturer to save time and receive accurate assessment results. According to Torres-Madroñero et al. (2020), ICT-based assessment has to consider the pedagogical approach adopted for a certain learning subject, so that the assessment results will not contribute to deviating from the ideal essence of learning. The English creative writing lecturer in the present study seems to have considered making use of an e-rater website according to the product approach adopted for teaching writing. The product approach addresses students' works based on two domains, namely ideational organization and language texture (vocabulary and

grammar). The E-rater website helped the lecturer in terms of assessing students' English texture in their written works. In the meantime, the lecturer still used a proofreading technique to assess students' ideational dimension, such as to see the organization of rhetorical moves.

The portrayals of ICT use as undertaken by English lecturers during teaching have confirmed the data already collected from the questionnaire. It means that the observational data and the questionnaire data associated with the use of ICT go hand in hand in a linear way. The data are credible and can avoid bias.

The Perceived Impacts of ICT on Students' Betterment

In terms of respondents' perspectives on the impacts of ICT, the quantitative results of the questionnaire indicated several findings. First, respondents perceived that ICT made students try harder in their learning. ICT enabled them to be autonomous learners who were responsible for their learning. Second, the respondents also perceived that the use of ICT could make students easy to understand and remember the learned materials. It seems that the modality of the materials presented in a multimodal way makes students easy to comprehend and store the materials in their memory. The descriptive data in this discourse can be seen in the following histogram presented in figure 4.

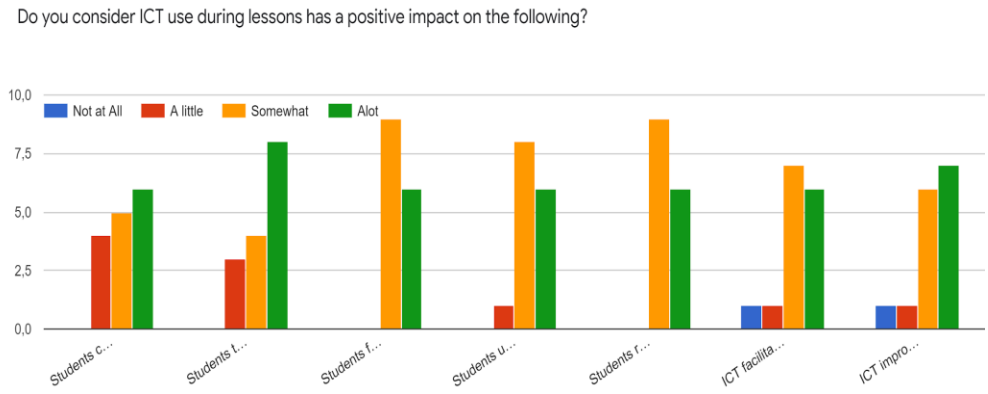

Figure 4. Histogram of the Perceived Impacts of ICT Use on Students' Betterment

Third, the finding also indicated that the respondents perceived the impact of ICT use on students' autonomous learning. They indicated

that ICT-based teaching could make students have self-control and responsibility for their learning. Additionally, ICT was perceived as having a positive impact on student's motivation. Finally, the respondents also indicated that the use of ICT could equip students with skills needed in the 21st century. The descriptive data in this discourse can be viewed in the following histogram is presented in figure 5.

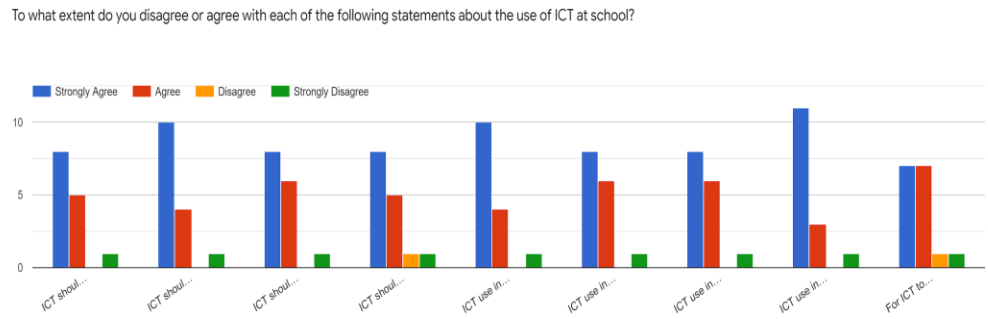

Figure 5. Histogram of the Impactful Use of ICT

The qualitative data garnered from interviews confirmed the survey data on English lecturers' perceived impacts of ITC. It is worth noting that the lecturers' names presented in this section are made anonymous by labeling them with lecturers 1, 2, 3, and so on. The interview data were codified into several themes as presented in table 2.

Table 2
Coded Interview Data on the Perceived Impacts of ICT on Students' Betterment

No	The Perceived Impacts of ICT	Themes codified from Interview data
1	The use of ICT makes students learn harder	• ICT enhances students' growth mindsets
2	The use of ICT leads students to autonomous and responsible learning	• ICT enhances students' metacognitive awareness
3	The use of ICT makes students easily remember and comprehend the learned materials	• ICT with its multimodal nature enhances students' active engagement in learning

As displayed in table 3, **first**, the perceived impact of ICT use was identical to the notion that ICT made students learn harder. The foregoing discourse could be identified from the following interview transcripts selected from lecturers 3, 5, 7, and 10 as follows.

> My students seem to be able to try harder in learning when I teach online using ICT media. Covid-19's condition and the reality that the learning system they must go through has been transformed into an online learning system essentially have served as a trigger for changing their mindsets. Before the covid-19, they thus far have been receptive to whatever the lecturer has conveyed; but now they must be more independent learners. They appear to be aware of this reality, and as a result, they are more active in independent learning alongside following my online learning flow (interview with lecturer 3).

> In my opinion, my students become more diligent in studying because they use various ICT media as a tool to access information (interview with lecturer 5).

> I teach an academic writing subject. Conceptually, this subject is very complex because not only do students have to be competent in scientific writing using good English, but they also have to be masterful at research methodology including things related to the epistemology of research itself. At first, I was quite pessimistic because reflecting on face-to-face learning with the previous batch of students before the Covid-19 period, teaching this academic writing course required extra effort to engage students. But, after going through online learning using ICT media during this Covid-19 condition, my students seem to have started to adapt. They seemed capable of trying harder. One thing that made me happy is when my students were voluntarily willing to read materials related to rhetorical moves in writing research-based papers. At first, I was a bit pessimistic that they would not willingly interact with these difficult materials merely based on my guidance online. They could follow my flow (interview with lecturer 7).

> In my opinion, my students are trained to be tougher because of online learning that uses ICT media. For example, they are better prepared for a set of presentation materials. They even seem to have had enough practice before presenting materials in online

> discussions via Zoom. Seemingly, the use of ICT media, which tends to be complex, triggers students' enthusiasm to study harder (interview with lecturer 10).

Four interview transcripts above basically demonstrated the lecturers' perceived impacts of ICT use on students' betterment in learning especially in terms of changing their growth mindsets. Theoretically, a growth mindset can be defined as one's belief that a goal can be attained by investing hard efforts (Truax, 2018). Growth mindsets are part of a motivational variable in the discourse of learning (Bai & Wang, 2020). The data of the present study echoed that the use of ICT contributed to the enhancement of students' growth mindsets, leading to students' more investments in learning. Similar findings have been addressed by Bai et al. (2019) in the context of Hong Kong and Kench et al. (2016) in the context of South Africa. According to Apriani et al., ICT not only enhances students' achievement and motivation but also their personalities (2019).

The **second** interview data indicated that the use of ICT led students to autonomous and responsible learning. The data in this discourse are portrayed in the following transcripts of interviews with lecturers 1, 2, 6, and 8.

> Learning with ICT, in my opinion, has an impact on students' ability to become self-directed learners. In my class, online learning involves students actively browsing materials at home. In addition, I teach English phonology classes. Especially for the material section related to pronunciation practice, it is essentially difficult to do via online learning that only relies on the Zoom application, and even then communication tends to be one-way because students frequently do not turn on their Zoom audios. Hence, for practical materials, I assign students to do independent practice with various videos from YouTube that I recommend. I advise students to create a timeline for their pronunciation practice so that I can assess their works (interview with lecturer 1).

> From what I perceive, learning using ICT makes my students more responsible for the learning materials they receive (interview with lecturer 2).

> In my opinion, the use of ICT in online learning makes students more serious about completing college assignments. It can be seen

> that the use of ICT triggers them to become more responsible students (interview with lecturer 6).
>
> I see that teaching using ICT helps shape students to be more autonomous. For example, when they are involved in class discussions, students seem to be getting used to navigating materials on Google for building up their argumentations during online discussions. So, the discussion discourse is not merely limited to the curricular content. Learning becomes more interactive and widespread (interviews with lecturers 8).

The cores of information highlighted in the four transcripts above basically have common ground echoing the notion that ICT enhances students' metacognitive awareness. The term metacognitive awareness in many ways is used interchangeably with the term metacognition. According to Kaur (2020), metacognitive awareness represents two primary domains, namely cognitive knowledge and cognitive regulation. The domain of cognitive knowledge is what has led students in the present study to autonomous learning as negotiated by lecturers 1 and 8. It means that the use of ICT helps students improve the domain of their cognitive knowledge which has been embodied in their autonomous learning. Teng (2020) elucidated that cognitive knowledge subsumes three sets of knowledge extending to declarative knowledge (knowledge about what to be learned and what to be comprehended), procedural knowledge (knowledge about various strategies which can be applied during learning), and conditional knowledge (knowledge about when and how to select some strategies from the existing bank of strategies according to conditional consideration). The present study has successfully demonstrated that ICT is perceived as a source triggering students to increase the aforesaid varieties of knowledge, leading them to be autonomous learners. The other domain of metacognitive awareness is cognitive regulation. This domain is what has been stimulated by ICT in the present study so that lecturers 2 and 6 perceived that their students become more responsible for their learning. According to Karlen (2017), cognitive regulation entails three areas of controlled learning, namely planning, monitoring, and evaluating. Conceptually, drawing upon the socio-cognitive theory as explained by Michaelis et al. (2021), it could be interpreted that the lecturers 2's and 6's students in the present study have gone through the independent learning steps of planning,

monitoring, and evaluating so that their responsible attitudes towards the materials learned can be naturally established.

The **third** interview data showed that the use of ICT was perceived to make students easily remember and comprehend the learned materials. This discourse could be identified from the following transcripts of interviews with lecturers 4, 9, and 11.

> When teaching in an English listening class, I used audio-visual material that I downloaded from YouTube. It seemed that this audio-visual input material made it easier for students to understand the material discourse because they not only relied on their senses of hearing to interpret the messages from the input material but also digested the material input using their senses of sight when watching the videos presented (interview with lecturer 4).
>
> I think the ICT source that I use, such as the British Council website, makes it easier for students to remember the information they read because the texts presented on the website provide input and emotion for stories that are displayed in the form of creative pictures (interview with lecturer 9).
>
> In addition to using e-books, in the morphology course, I also use some materials from YouTube that I have chosen according to the content of the morphological curriculum. In my opinion, ICT sources such as YouTube help students to easily understand the flow of the morphology e-book (interviews with 11 lecturers).

Three lecturers as depicted in the above interview transcripts to some extent addressed the essence of ICT in terms of providing multimodal input which could boost students' memory-related and comprehension-related skills. The present study's findings at some point support the previous study executed by Grandisson Sanguino and Lenguas (2020) which highlighted the merit of ICT, such as videos, as a multimodal resource that potentially enhances students' skills at meaning-making. The sense of meaning-making here is similar to the sense of meaning construction done by the students in the present study's portrayal to remember and comprehend the lecturers' materials. Images and movies, for example, can assist learners to escape from text screens and improve their instructional value by engaging the eyes (Apriani & Hidayah, 2019). Another study conducted by Ganapathy and Seetharam (2016) is also aligned with the present study's findings on the merit of

ICT in terms of its multimodal components which help students understand their lessons better.

CONCLUSION

Drawing upon the application of a concurrent-embedded mixed-method design to scientifically work on two research problems, oriented towards the use of ICT in ELT and the perceived impacts of ICT use on students' betterment, the present study has revealed solid and credible data in the epistemological perspectives of both positivism and constructivism. The data processing results and data discussions have cast light on several conclusive points as follows:

First, concerning the use of ICT in ELT, English lecturers at the State Islamic Institute of Curup have used ICT for several pedagogical purposes, such as preparing materials, browsing materials for their lessons, preparing material presentations, and evaluating alongside giving feedback on students' learning. There are several portrayals of the application of ICT according to the aforementioned pedagogical purposes. To prepare materials, the lecturers design the material presentation using PPT, make use of G-drive to prepare easily accessed materials according to students' needs, and make use of Google Scholar to map theoretical resources of teaching and learning materials. To browse materials, the lecturers make use of YouTube due to the provision of ready-made sources. To download materials, the lecturers use computers and smartphones to download materials from the internet. To present materials, the lecturers use videos and films. To evaluate and give feedback on students' learning, the lecturers use websites, such as e-rater websites, to receive automatic but accurate results to check students' work.

Second, all English lecturers have perceived that ICT has positive, beneficial, and contributive impacts on students' betterment in learning. The lecturers perceive that the use of ICT makes students learn harder and be more motivated in learning. ICT in this sense enhances students' growth mindsets. The lecturers continuously perceive that the use of ICT leads students to autonomous and responsible learning. ICT in this respect enhances students' metacognitive awareness. Lastly, the lecturers perceive that the use of ICT makes students easily remember and comprehend the learned materials. ICT with its multimodal nature in this regard enhances students' active engagement in learning. Our findings in this line are interesting because the findings draw the

contributions of ICT to students' growth mindsets, metacognition, and learning engagement.

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