

The effect of ICT use on classroom management in English teaching

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ABSTRACT

The use of information and communication technology (ICT) is reviewed in this article. Multimedia technology is just a teaching tool that may be utilized to improve the classroom experience; the concept of bringing multimedia into the classroom is not new. The purpose of this article was to look at the perspectives and first-hand experiences of English language teachers on how ICT affects classroom management. A mixed-method approach, a subset of qualitative research design, was employed in this study. ICT is heavily used in management classroom training because teaching the development of a broad range of technical, social, and conceptual skills is necessary for management. English language instructors gain from the use of ICT since it improves instruction efficiency, inspires students to learn, and simplifies classroom operations.

Keywords: *ICT, Language Teaching, Teacher Training.*

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Introduction

This article examines the factors that influence the type and quantity of ICT used in EFL classroom context, as well as how ICT use may affect how well the classroom management is. In this article, the acronym ICT is used as a catch-all to refer to any information or communication technology, any technology that arises from the combination of these, or a mixture of many of these.

According to Alavi, M., & Gallupe, R.B. (2003), ICT enhances learning experiences in business and management education by making them more interactive and engaging. It introduces multimedia presentations, simulations, and gamification to clarify concepts and keep students interested. ICT also promotes active participation through online discussion forums, interactive quizzes, and flipped classrooms, where students engage with materials before class and use class time for hands-on activities. Real-time feedback tools and adaptive learning systems personalize the learning process, while cloud-based collaboration tools and virtual classrooms facilitate group work and project management, preparing students effectively for real-world business challenges.

In contemporary society, Information and Communication Technologies (ICTs) have

rapidly emerged as fundamental pillars, shaping various aspects of our lives. As noted by Daniels (2002), mastery of ICTs and understanding their core concepts are now regarded as indispensable components of education, alongside traditional subjects such as reading, writing, and arithmetic. However, there exists a common misconception that ICTs are solely synonymous with "computers and computing-related activities." Contrary to this belief, ICTs encompass a broader spectrum of technologies and systems that facilitate information management and communication.

Moreover, Bottino (2004) likely emphasized the multifaceted role of Information and Communication Technology (ICT) in education, highlighting its capacity to enhance learning experiences, improve access to information, support collaboration among students and educators, offer customization and flexibility in learning, and foster the development of essential ICT skills. ICT's impact spans from providing interactive and engaging learning environments through multimedia tools to facilitating real-time collaboration and communication via online platforms. Furthermore, it enables personalized learning experiences tailored to diverse learning styles and schedules while equipping students with the digital literacy necessary for success in the modern world.

Pelgrum (2003) and Law (2003) shed light on the evolution of the term "ICT." Initially, the focus was primarily on computing technology, which later transitioned to the ability to store and retrieve information when the term "IT" (information technology) gained prominence in the late 1980s. Subsequently, with the widespread accessibility of e-mail to a broader audience in 1992, the term "ICT" (information and communication technology) was coined (Pelgrum, W.J., Law, 1993).

Daulay, S. H., Damanik, E. S. D., Wandini, R. R., & Rahmaini. (2024) also argued that learning through technology can make the students engaged to the learning activity. They stated that promoting interactive learning through technology involves leveraging digital tools and platforms to create immersive, hands-on learning experiences that actively engage students and deepen their understanding of the subject matter. These interactive approaches encourage active participation, critical thinking, and problem-solving skills, ultimately enhancing learning outcomes. Another statement forced by Debataraja, C. S., & Daulay, S. H. (2024), stated that ICT supports individualized learning experiences, allowing learners to tailor their learning path according to their interests, proficiency level, and goals.

Despite the widespread acknowledgment of ICTs' significance, there remains a need to delve deeper into their implications, applications, and effects on various sectors. Hence, the primary motivation for this research is to elucidate the multifaceted roles and impacts of ICTs in contemporary society. By conducting this study, we aim to contribute to a comprehensive understanding of ICTs' influence on education, communication, business, and societal dynamics. Moreover, we seek to identify challenges and opportunities associated with the integration and utilization of ICTs, thereby informing strategies for harnessing their potential effectively.

Educators have a pivotal role in facilitating learning through the utilization of accessible approaches, strategies, and tools. According to Brooks & Brooks (1999) and Farrell (1999), an effective teacher is able to

mediate a range of relationships in the classroom and handle challenging classes. Thus, Sabaliauskas, Bukantaitė, and Pukelis (2006) stated that in order to use ICT in the classroom, teachers must possess the following skills: 1) ICT fundamentals; 2) ICT technological; 3) ICT policy; 4) ICT use ethics; 5) ICT integration into the subject matter; 6) didactical approaches based on the application of ICT competencies; and 7) managing the teaching/learning process while utilizing ICT competencies. Punie, Zinnbauer, and Cabrera (2006) emphasized that hitting a button is not the only way to accomplish this. The following factors were necessary for the successful integration of new technology and practices in schools: (1) ICT as part of the school's culture and strategic planning; (2) participatory and empowerment-promoting teaching and learning methods; (3) adaptable curricula; (4) substantial communication expenditures; (5) excellent leadership and administration; and (6) great capability and dedication from the faculty (Niemi, Kynäslähti & Vahtivuori-Hänninen, 2013). Teachers require empathetic support in addition to technical and pedagogical assistance, according to Chambers and Bax (2006). ICT may help build effective learning environments in a variety of ways. According to the statistics (Smeets, 2005; Zhiwen & Ian, 2011), the majority of instructors acknowledged the potential contribution of ICT and had initially expressed good attitudes and strong enthusiasm for using ICT in English education. According to research by Kozma (2003) and Jung, Choi, Lim, and Leem (2002), teachers are using ICT to shift from being the main information source to one who gives pupils structure and guidance, keeps track of their development, and evaluates their achievements. Ilomäki (2008) demonstrated that ICT was mostly utilized as a tool: 1) to impart knowledge or practice a particular learning topic; 2) to encourage teamwork or the creation of new knowledge; and 3) to organize the teaching and learning processes, which differed from the teacher's previous methods of administration. According to Demetriadis, Barbas, Molohides, Palaigeorgiou, Psillos, Vlahavas, Tsoukalas, and Pombortsis (2003), educators were eager to use ICT to improve their professional standing and to capitalize on any potential educational advantages.

As one might hope, Lai and Pratt (2008) found that the most noticeable results of ICT use for teachers were not changes in pedagogy or teaching philosophy, but rather increased efficiency in managing and administering the classroom and accessing resources for creating lesson plans and delivering instruction. According to Selwood and Pilkington's (2005) research, educators thought that ICT may help them be more productive and lighten their workload. Research by Jung et al. (2002) demonstrated that the impacts of various interaction styles in a Web-based learning environment vary with regard to learner achievement, satisfaction, and interaction engagement. Language teachers have discovered that single-class computer-mediated communication projects are advantageous in the following ways: first, computer-assisted discussion tends to have more equitable involvement than face-to-face discussion (Warschauer, 1996; Warschauer & Meskil, 2000). Second, students can incorporate ideas from other people's communications into their own through computer-assisted discussion. Third, compared to in-person conversations, computer-assisted discussion gives for greater planning time. Lastly, computer-based conversation gives students more chances to converse in the target language because it can happen outside of the classroom.

In the realm of educational technology, scholars such as Courts and Tucker (2012) have emphasized the eagerness of educators and students to incorporate new technologies into college education. The integration of modern technology enables students to engage in online research and communication, which are deemed essential for academic and professional success (Schulz-Zander, Butcher, & Dalmer, 2002). Additionally, the varying competencies in handling ICT among students have opened up new possibilities for their roles within courses, potentially leading to students with lower academic performance becoming tutors in ICT-related areas (Schulz-Zander et al., 2002).

Also, the role of Information and Communication Technology is pivotal in enhancing management education. Beatty and Leigh (2010) discussed the role of Information

and Communication Technology (ICT) in enhancing management education by facilitating interactive and engaging learning experiences. They highlighted how ICT tools can support experiential learning and reflective practices, enabling students to apply theoretical knowledge in practical settings and reflect on their learning processes. Additionally, ICT helps in integrating different areas of knowledge and promoting ethical considerations through access to a wide range of resources and collaborative platforms.

Discussions on the integration of Information and Communication Technology (ICT) in learning English often revolve around its capacity to enhance language skills through interactive software, online courses, and multimedia content, including videos and podcasts. Additionally, ICT provides access to authentic English-language materials from around the world, fostering listening, reading, and comprehension skills while exposing learners to diverse cultural perspectives. Nst, A. H., Daulay, S. H., & Dewi, U. (2023). Facilitating communication and collaboration, ICT platforms enable learners to interact with native speakers, engage in peer-to-peer learning, and practice language skills through email, social media, and video conferencing. Pasaribu, G. R., Daulay, S. H., & Saragih, Z. (2023).

While there is recognition of the potential benefits of integrating ICT in education, the literature also underscores the need for a nuanced understanding of its implementation and management strategies. Hayes (2007) notes that ICT is predominantly integrated in ways that complement existing teaching methods, suggesting a gap in exploring more innovative approaches. Edwards (2000) highlights the necessity of distinct management strategies to effectively utilize ICT in education, indicating a potential research area focusing on the development and assessment of such strategies.

Moreover, Lim, Pek, and Chai (2005) emphasize the importance of proper handling of ICT-mediated lessons in creating a conducive learning environment, suggesting a gap in understanding the specific instructional techniques that optimize ICT integration.

Similarly, Schibeci et al. (2008) suggest that teachers need to adapt their classroom management strategies in response to changes in student-ICT interaction, indicating a potential research gap in exploring adaptive teaching methodologies.

Furthermore, the literature emphasizes the significance of classroom management in optimizing the learning environment. While classroom management traditionally encompasses aspects such as physical environment, time management, behavior control, and curriculum administration (Basar, 2001), the integration of ICT introduces new dynamics to this paradigm. However, there appears to be a gap in understanding how traditional classroom management practices need to evolve to effectively incorporate ICT

Method

An embedded single-case design was employed in this case study, a type of qualitative research methodology, to provide a detailed description of the procedure. The research's lone case involves English language instructors' ICT proficiency through classroom management. The student behaviours and responses, the way ICTs are the embedded sources of data identified in the single example include materials utilized in the classroom, documents, and the general environment of the classroom. The study employed two techniques for data collection: open-ended, standardized interviews and observations (Mason, 2002; Patton, 1990; Rubin & Rubin, 1995; Yildirim & Simsek, 2006).

The study employed a mixed-methods approach, utilizing both classroom observations and interviews to investigate the impact of ICT proficiency on classroom management among English language instructors. The study included 6 English language instructors from SMK Negeri 2 Medan. Participants were selected based on experience level or teaching setting.

In the first phase, participants were interviewed using a standardized, open-ended interview form designed to assess their ICT proficiency and its influence on classroom management. The interview comprised an

and foster meaningful student engagement (Marzano, 2003).

Overall, while existing literature provides insights into the integration and management of ICT in education, there remains a need for research that explores innovative approaches, effective management strategies, and the evolving role of classroom management in the digital age. Addressing these research gaps could contribute to a deeper understanding of the implications of ICT integration on teaching and learning practices.

In order to promote the adoption of a computer and web-based English teaching and learning model, the paper's goal was to ascertain how ICT affects classroom management in language instruction.

hour and a half and consisted of 9 standardized questions, as well as 39 follow-up questions tailored to probe deeper into specific areas of interest. The interviews were conducted face-to-face to facilitate detailed responses and clarification when necessary.

In the second phase, each instructor was observed in the classroom using a semi-structured observation technique. Checklists covering five aspects of classroom management—physical environment, student behaviour, time management, planning and programming procedures, and relationship and communication management—were employed to guide the observations. Observers took notes during the observations to record relevant observations and insights.

Data collected from both interviews and observations were analyzed using thematic analysis and content analysis. The transcripts from the interviews were coded and categorized to identify recurring themes and patterns related to ICT proficiency and classroom management. Observational data were also analyzed for consistency with interview findings and to provide additional insights into classroom practices. To ensure the validity and reliability of the findings, the study employed various techniques, including internal consistency checks, data confirmation, and comparison with existing studies. Additionally, the study provided detailed

descriptions of the sample, data collection procedures, and analysis methods to enhance

Result & Discussion

Initially, training, ICT usage in schools, and ICT use in private life were included in Tables 1 and 2 of this section. Second, there was discussion of the findings on the impact of ICT on classroom management.

Table 1: ICT Training for Pre-service and In-service Teachers

	Pre-Service/In-Service					
	T1	T2	T3	T4	T5	T6
Instruction on the fundamentals of computer use	+/+	+/+	-/-	-/-	+/+	+
Instruction in fundamental computer programming	+/+	+/+	+/-	-/-	+/+	+/-
Instruction in Web Design	-/+	-/+	+/-	-/-	-/-	-/-

Management of Physical Environment

The results of the interviews appear to cluster in the axis' negative half. The interview results indicate that the following current conditions contribute to challenges with ICT use in classroom management: There are several issues with ICT in the classroom: 1) it is fixed; 2) students sit in rows; 3) it is crowded; 4) students cannot physically access ICT; 5) electrical devices are inadequate or unsuitable for technological use; 6) there isn't enough room in the classrooms for ICT-supported activities; 7) the software used prevents teachers from operating in a flexible manner; and 8) teacher-centered education has dominated the instruction adopted. Mumtaz (2000) and Cure and Ozdener (2008) noted that using ICT in packed classrooms with little resources is challenging.

Teachers in these classrooms felt pressured to take on more work. Additionally,

transparency and replicability.

Table 2: The ICT Use Profiles of Teachers in Schools

	T1	T2	T3	T4	T5	T6
Smart Display	+	-	-	+	+	+
System	+	+	+	+	+	+
Instructional CD	-	+	-	+	-	-
Instructional Program	+	+	+	+	+	+
Internet	+	+	-	+	+	+

The results of the study of the observations and interviews were provided in the following lines in five primary categories that, taken together, can be said to examine a certain facet of classroom management:

the findings showed that pupils were seated in rows in four of the observed classrooms and in a U form in two of them. Although the temperature, brightness, hygienic conditions, and student population were all mentioned as being present, it is important to note that activities needing practices were not meant for these classrooms. Sound systems and smart boards were mounted on the walls in every classroom, and computer numbers were off-limits to individual use. Additionally, troublesome were the gadgets' portability, accessibility, and electric equipment. According to Demirbilek and Yucel (2011), having one or a small number of computers encourages teachers to implement teacher-based learning. One participant said, "I believe that the classrooms should be designed in a way that allows the teachers more freedom," regarding this matter. Sometimes our courses are so small that there isn't even room for a desk-to-desk distance of half a meter. As such, we are unable to establish practices. (3T3).

One more participant noted, "In order to have a learner-based education, personal technology should be offered. In the current scenario, teacher-controlled projectors (T2), classic row seating arrangements, and teacher-based teaching are all being utilized. According to the interviewers, instructors' use of ICT does not always result in a more student-centered approach to teaching. Teachers felt that certain situational aspects, such as the material and procedures used in

Management of Student' Behaviours

Teachers that use ICT in the classroom to manage students' behaviour first indicated that it made it easier and better for them to enforce rules, and that it also made them feel more loved and respected by the students (n6). Second, the interview results demonstrate that teachers had more opportunity to examine individual characteristics and teach pupils the targeted behaviours when they used ICT. The researchers saw that professors considered individual differences to varying degrees. For example, teacher 1 was seen to focus on each student the majority of the time; teachers 4, 5, and 6 occasionally, and teachers 2 and 3 infrequently. Consistent findings were obtained from the observations and interviews.

We saw that Teacher 1 used information and communication technologies together with kinaesthetic and oral communication techniques while speaking with the kids. Consequently, it was shown that a strategy that struck a balance between technology and interpersonal interactions may have a good impact on students' behavior. Additionally, it was observed that, when it came to human relations, Teachers 4, 5, and 6 employed ICT in their lessons more than Teacher 1. Conversely, instructors 2 and 3 heavily relied on ICT while mostly disregarding human interactions. Because of this, it can be said that, in comparison to classes taught by teachers 4, 5, and 6, unruly behaviours such as losing motivation, straying from the subject, chatting to one another, and choosing to focus on other tasks occurred more frequently in the classrooms of teachers 2 and

response to the students' requirements, were responsible for the method's degree of student-centeredness (n6). One of the instructors said, "In my opinion, whether education is teacher-centered or student-centered is not only associated with the physical condition of the class or the technology used." These certainly have positive effects, but attitudes from teachers and students matter more than anything else (5T5).

3. T2 said, "Maybe it doesn't have a big impact, but I find it rather beneficial," in this regard. For instance, I always find it difficult to maintain control over the class when I don't use this technology. Due to the fact that I must always have the focus of my students, every moment I am unable to do so, a problem among them arises right away.

Thirdly, the participants also expressed satisfaction with the negative behaviors that resulted from ignoring positive human contacts when using ICT and the inappropriateness of the material used. The most commonly reported negative behaviors were stifling or upsetting one another, visiting unsuitable websites, downloading and enjoying music, wasting time on online activities, and posing indifferent queries. One participant made the following observation: "Students sometimes tend to use ICT as a game tool (T1)." "I occasionally notice that students try to enter different kinds of websites to play games and listen to music," said one participant. (3T3)

Fourthly, the information gathered from the observations demonstrated the necessity of instructors' leadership in controlling the behavior of students as a result of their use of ICT. Teachers 5, 6, 1, 2, 3, and 4 demonstrated strong, medium, and inadequate degrees of leadership, in that order. These results were anticipated because it was seen that Teacher 2 and Teacher 3's ICT use closely mirrored traditional teaching techniques in that students' use of the technology was constrained to the software's functions and they were not allowed to freely express and share their thoughts and feelings. One participant stated, "Students feel more satisfied when technology is used in the classroom

under the teacher's effective guidance." Students that participate in the activities effectively grow in confidence and establish better classroom relationships (T6). Teacher 5 pointed out in this issue that in order for any student-centered teaching style to be successful, a teacher's direction is necessary. The planning, preparation, and follow-up of classes constitute a significant portion of instructors' pedagogies, as Cox and Marshall (2007) pointed out. This indicates that although though a lot of instructors claim that when they use ICT, they become more of a facilitator than a leader in the classroom, because they have organized and directed the class, they still largely take on a leading position in their instruction.

Management of Communications and Relationships

The results indicate that, in terms of managing relationships and communications, ICT facilitates productive communication within the school (n4). In this regard, Teacher 5 said, "I think they like the way that ICT is used to display the learning materials, pupils become more authentic and courteous in their language use." Additionally, students become more creative contributions to the lesson. When we used the conventional (behaviorist approach) way of instruction, this was not the case. "Technology changes classroom atmosphere positively," according to Teacher 6. This result is in line with the information acquired from the observations. With the exception of Teacher 2's class, where formal procedures predominated, there was sufficient evidence of a supportive learning environment in every classroom.

Second, the information acquired from observations and interviews reveals that the usage of ICT reduced group and student communication while simultaneously increasing Interaction between students, teachers, and technology. For example, Teacher 2 said, "I can categorically state that my use of ICT increases student-teacher and student-technology interaction in my courses." in this direction. However, it goes without saying that using ICT limits students'

Finally, in terms of motivation, ICT appears to alter the conventional methods and approaches used at the beginning and end of the class. The results demonstrate that the interactive quality of the ICT's multipurpose audiovisual content was viewed as a motivational tool and tactic. The teacher who stated the following in this problem was quoting kids who believed that using technology was a reward and that not being able to use it was a punishment. (T1). Another teacher (T3) stated, "I let my students who proceed well use the computer even in the break times as a reward."

opportunities for social interaction with one another.

Thirdly, the use of ICT increased the opportunity for audio-visual multi-interaction, as both observations and interviews demonstrated. Pupils appeared to care more about classroom norms and were better able to comprehend the teacher's directions (n6). One teacher noted that T1's visual and aural supplements helped make instructions more understandable. "You have to give instructions verbally and non-verbal without the use of ICT," stated Teacher 2. However, ICT fills this role for you. It provides appropriate verbal and aural support.

Fourth, educators believe that by utilizing ICT, they could communicate with pupils more effectively. The instructor said, "A teacher finds more opportunity to be among the students aside from being perceived as the person who writes something on the board."

Finally, teachers who used ICT employed their vocal cords less frequently but more efficiently (n3). Based on the information collected from four distinct teachers' observational data sets, teachers appeared more rested at the conclusion of the lesson. This implies that ICT may potentially help teachers avoid experiencing physical or mental exhaustion.

Time Management

The first thing that emerged from the interviews is that instructional activity preparation takes less time when using ICT. Second, it gives pupils access to a simultaneous education. Thirdly, it works well for the following processes: launching the lesson, grabbing the students' interest, obtaining information and evaluating past knowledge, giving directions for a task, transferring the task and the pupils' answer, assessing comprehension, assigning homework, establishing deadlines, responding to homework, and concluding the lesson. Fourth, teachers can handle more tasks in a given amount of time when they use ICT (n5). According to Jung et al. (2002), while technology competency helps maximize students' study time, knowing learning styles can assist teachers in creating effective lesson plans. Regarding this, two participants stated: "It offers practicality and enables the production of more items in a shorter amount of time." (T4). "You have the option to multitask by doing multiple tasks at once or to

complete the tasks ahead of time so that you can play. These technologies, of course, give this speed. The sixth. Due to the pupils' ability to become motivated more rapidly, it was observed that there was almost no time lost in the beginning. They could also pick up on, comprehend, and react to teachers quickly. The theme's difficulty suggests that lessons should be designed more carefully. Individual variations may be preferable in the teaching process. Technology helped the teachers complete the curriculum on time as well. "First of all, it reduces the time needed to prepare lessons," a teacher stated in this article. For instance, dealing with documents is required in some classes, which wears me out. However, in the ICT-enabled classrooms, all the materials are available on computers, and every student has access to them.

Furthermore, all the materials are ready. Consequently, time is not lost. (T2)". "Students receive feedback more quickly than with traditional methods (T1) when they comprehend the material better," stated another educator.

Managing Planning and Programming Process in the School Management

The results indicate that utilizing ICT improved and streamlined the planning process, with numerous benefits cited by the teachers. The first of these results is that using ICT allows for a range of instructional strategies and makes it possible to handle various tasks (n2). Nonetheless, a few educators who were questioned emphasized the constraints they encountered as a result of their insistence on using conventional techniques (n3). These results support the notion that teachers needed to be educated on current ICT knowledge and information methods and procedures. Regarding this, a teacher stated, "We make every effort to utilize these technologies, naturally, because it lessens our workload and enables us to succeed more in our educational endeavours. (T5). In contrast, Teacher 1 stated, "If I did not use ICT, I would have to use a teacher-centered approach in which telling technique is dominant." However, I can now access pupils' cognitive capacities in a variety of ways.

Second, educators claimed that using ICT improved their ability to pique students' attention and encourage a desire to learn. Teachers also stated that they felt the kids were enjoying the session more than they had previously (n5). This conclusion is powerfully emphasized in the T5 statement, which reads, "They don't always listen to me too much." However, even the most uninterested learner begins to show interest in the subject if they take in some music or watch a video. Another educator stated, "There's no doubt that these technologies have a positive impact on focusing on the topic held." Students' attention can occasionally be drawn to visual instructional materials far more than to traditional approaches, and once they become engaged in the main idea of the subject, it is difficult to divert them (T6). We only saw apathy in the classrooms of Teachers 1 and 3. The tiniest kids in the first class and a lack of computers in the second could be the causes of the apathy in these two classes. However, pupils showed extremely positive attitudes about learning with the use of ICT in every class that was observed. These results provide

credence to the notion that ICT improves classroom management. For example, Teacher 2 stated, "With the use of ICT, students' motivation cannot be readily distracted; even in the event of distraction in a relatively short period of time, their attention can be concentrated on the theme." The results of Cure ve Ozdener's (2008) study show that teachers believe that integrating ICT increases student success, makes learning easier, grabs students' attention, and boosts the efficiency of instruction.

Thirdly, teachers reported that when ICT is used, students learn more quickly and effectively, and as a result, they are more likely to provide timely feedback (n5). Students exhibit higher levels of self-confidence, and their attitudes and oral products sufficiently demonstrate their good growth of cognitive and sensitive skills. According to Teacher 4, ICT is a very successful educational tool because it allows students to clearly see their progress in all four skills—speaking, writing, reading, and listening—over the duration of the lesson. For instance, during this procedure, students were seen to be more open to sharing their opinions on the subject. In this regard, Teacher 2 said, "There is a noticeable increase in the number of hands raised when we start utilizing ICT for activities." Thus, it is easy for me to say that these technologies improve the effectiveness of my courses. According to Teacher 1, "I think that basing course design around technological devices can have even unexpected advantages." For instance, it surprises me to realize that students who don't often stand out from the crowd are willing to join in the events.

Fourth, educators felt that ICT improved student involvement (6 students);

Conclusion

This article's goal was to investigate ICT through the perspectives and experiences of English language teachers regarding how ICT has affected classroom management. Consequently, it was discovered that the classrooms' physical layouts, technical characteristics, and infrastructures were unsuitable for individualized learning based

three pupils: two students reported feeling more at ease and willing; three students were motivated and contributed to making the lessons more enjoyable; and three students helped the other students pay closer attention to instructions. While most teachers seemed to support their pupils, we found that when teachers allowed their students to use the ICT on their own, the results were the most successful. In general, 90% of the pupils demonstrate a willingness to participate in the activities, according to Teacher 6. Assuming that 50% of the students were already highly motivated, the remaining 40% must also be very significant.

Lastly, teachers mentioned that because using ICT saves time, it is possible to apply a variety of evaluation methodologies when assessing instruction (n5). Additionally, it was said that there was a better way to monitor and manage student learning. As a result, we saw that educators could more skilfully assess and reorganize the teaching process. Teacher 2 stated, "ICT encourages me to use various evaluation techniques" in this way. Teacher 1 stated, "Without using the traditional method of asking individual questions, I can now easily assess the students during the exercise." In the past, I may spend several minutes questioning one or two people about the assigned theme. Teacher 4 said, "We play games, sing songs, or even write poems as a way to review the material while having fun. Rather of posing queries like "What did we learn today? or How did we construct a sentence in the past?" That way, I can even keep a closer eye on their comprehension level.

on technology gadgets, both in terms of quality and quantity. It might be argued that one of the main causes of the detrimental effects on classroom management procedures was probably these technological and physical deficiencies. In this regard, the technological and physical attributes of the current educational system ought to be assessed. It should be mentioned that classroom architecture should be changed in order to effectively improve technology-individual interaction. ICT is used extensively in the

teaching and learning process; in some cases, it facilitates and in others, it drives these uses. In this piece, we examined how ICT is used in the classroom to teach management through the lens of technology. We sketched out a typology of ICT use in management education for a range of pedagogical objectives.

In a classroom setting, the success of educational objectives, which may be linked to the comprehension and implementation of certain basic or complicated concepts, determines how well a management subject is taught. Our basic 2x2 model illustrates how each of these is expected to utilize and use technology differently. The majority of ICT applications in the classroom entail gathering, obtaining, examining, executing, and presenting educational resources, notions, ideas, models, procedures, simulations, and games. Information is communicated to students via screens that display information either in an interactive or passive format. Presenting material in a more dynamic or interactive learning environment will greatly boost student understanding, according to Nicholson et al. (2008) interest in the topic as well as satisfaction with the learning environment." When implemented properly, interactive ICT may greatly increase the interest and efficacy of management education.

References

- Alavi, M., & Gallupe, R.B. (2003). Using information technology in learning: Case studies in business and management education programs. *Academy of Management Learning and Education*, 2(2), 139-153.
- Basar. H., Yonetimi, S. (2011). *Classroom Management*. Ankara: Ani Yayıncılık.
- Beatty, J.E., & Leigh, J.S.A. (2010). Taking stock of management education: A comparison of three management education journals. *Journal of Management Education*, 34(3), 367-392.
- Bottino. R.M., (2004). The Evolution of ICT based Learning Environments: Which Perspective for the School of the Future?. *British Journal of Educational Technology*, 35(5), 553-567.
- Brooks. In Search of Understanding the Case for Constructivist Classrooms, Alexandria, VA, USA, Association for Supervision & Curriculum Development, (1999), Retrieved May 1 (2013) from <http://site.ebrary.com/lib/akdeniz/Doc>.
- Chambers and Bax. (2006). Making CALL Work: Towards Normalisation, System, 34(4), 465-479.
- Daulay, S. H., Damanik, E. S. D., Wandini, R. R., & Rahmaini. (2024). STEM, robotics, mobile apps in early childhood and

According to the findings, there is a strong and positive association. Between ICT use and behaviour management among pupils. The results showed that when ICT and positive interpersonal interactions are used equally, beneficial student behaviours happen. The results also showed that teachers could concentrate more effectively on their students' learning when all types of instructional materials utilized with and in ICT were created with their interests and needs in mind. This would likely lead to a decrease in disruptive behaviours. Teachers, on the other hand, expressed dissatisfaction with the core features of the educational system, specifically with regard to the lack of flexibility in content planning. They felt that greater autonomy in this area, based on their experience and theoretical knowledge, would lead to greater success. In this way, critical techniques for navigating technology and social networks must be taught to students, as well as the critical reading and writing skills that Coombs, Leite, and Grierson (2010) so eloquently stated. Therefore, it can be concluded that our aspirations for developing an ICT-centred, more productive learning environment would not be met if technological gadgets did not include professional items.

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- Debataraja, C. S., & Daulay, S. H. (2024). The Effectiveness of Rosetta Stone as Media to Increase Vocabulary Skill in EFL Senior High School. *Jurnal Ilmu Pendidikan (JIP) STKIP Kusuma Negara*, 15(2), 150-158.
- Hudson, R. and Notman, H. (2001). Challenges of ICT Resourced Classes and Helpful Routines: Lessons from Teaching Practice, *Computer Education*, 99, 24-26.
- J.J.F. McLeod and G. Hoover. (2013). The Key Elements of Classroom Management: Managing Time and Space, Student Behaviour and Instructional Strategies, Association for Supervision & Curriculum Development, Retrieved May 1 (2013), from <http://site.ebrary.com/lib/akdeniz/Doc>.
- J. Mason. (2002). *Qualitative Researching (2nd Edition)*. London: Sage Publications.
- John, P., Sutherland, R. (2004). Teaching and Learning with ICT: New Technology, New Pedagogy, Education, Communication and In Information, 4(1), 101-107.
- Kozma, R. (2003). Technology and Classroom Practices: An International Study. *Journal of Research on Computers in Education*, 36, 1-14.
- K.W. Lai and K. Pratt, Positive to a Degree: The Effects of ICT Use in New Zealand Secondary Schools, *Computers in the Schools*, 24(3-4), 95-109.
- Landen, M., (1997). The Role of Technology in Education and Training. *Industrial and Commercial Training*, 29(7), 230-235.
- Lim, C.P., Pek, N.S., and Chai. (2005). Classroom Management Issues in Information and Communication Technology (ICT)-Mediated Learning Environments: Back To The Basics, *Journal of Educational Multimedia and Hypermedia*, 14(4), 391-414.
- Marzano, R.J. (2013). *Classroom Management that Works: Research-based Strategies for Every Teacher*, Alexandria, VA, USA, Association for Supervision & Curriculum Development, Retrieved May 1 (2013) from <http://site.ebrary.com/lib/akdeniz/Doc>.
- Nst, A. H., Daulay, S. H., & Dewi, U. (2023). Using Rosetta Stone Application as a Mobile Assited Language Learning (MALL) in EFL: Documentary Study. *Scope: Journal of English Language Teaching*, 8(1), 08-13.
- Pasaribu, G. R., Daulay, S. H., & Saragih, Z. (2023). The implementation of ICT in teaching English by the teacher of MTS Swasta Al-Amin. *English Language and Education Spectrum*, 3(2), 47-60.
- Punie, Zinnbauer, D. and Cabrera, M. (2006). A Review of the Impact of ICT on Learning, Working Paper Prepared for DG EAC, (2006), Institute for Prospective Technological Studies (IPTS), JRC, European Commission.
- Selwood. I., and Pilkington. R. (2005). Teacher Workload: Using ICT to Release Time to Teach, *Educational Review*, 57(2), 163-174.
- Schulz-Zander. R. Buchter and Dalmer. (2002). The Role of ICT as a Promoter of Students' Cooperation, *Journal of Computer Assisted Learning*, 18, 438-448.

- Smith and R. Laslet. (1993). *Effective Classroom Management: A Teacher's Guide (Second Edition)*. New York: Routledge.
- Stottinger, B., & Schlegelmilch, B.B. (2002). Information and Communication Technologies in Tertiary Education: A 'customer' Perspective. *Marketing Education Review*, 12(2), 63-72.
- Tondeur. J., van Keer. H., van Braak. J. and Valcke. M. (2008). ICT Integration in the Classroom: Challenging the Potential of a School Policy, *Computers & Education*, 51, 212-223.
- UNESCO. (2002). Using ICT for Quality Teaching, Learning, and Effective Management: Report of the Seventh UNESCOACEID International Conference on Education, UNESCO, Bangkok, Thailand, 11-14 December.
- Young. M.R., Klemz. B.R. and Murphy. (2003). Enhancing Learning Outcomes: The Effects of Instructional Technology, Learning Styles, Instructional Methods and Student Behaviour, *Journal of Marketing Education*, 25(2), 130-42.