DIGITAL LITERACY AS A TOOL FOR FOSTERING ENGAGEMENT AND MOTIVATION IN ONLINE/HYBRID ESP CLASSES

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Abstract. Technology is inevitably connected to the teaching/learning process. It helps instructors, but at the same time, technology transfers responsibility for learning to students. Students can guide their learning at their own pace, direct their progress and have access to course content by participating in online/hybrid learning. That is why digital skills are essential in today’s education and society. But, what digital skills are needed to learn and thrive today? How about the skills needed to encourage engagement and motivation in learning? Digital literacy and confidence for everyone involved in education have become more vital than ever. This paper describes the results of a one-semester English for Information Technology course at the South East European University in Macedonia to determine if the core curriculum items provide motivation for students engaged in online/hybrid class. Also, it determines whether the students have the capabilities and skills to participate entirely in the digital society. The hybrid model discussed in this paper is the concurrent teaching-learning model. In this model, the author taught some students who were in person with her in the physical classroom, and at the same time, the teacher’s instruction was being streamed live through Google Meet with other students logged in at home. The teaching/learning process results will show why it is necessary to change our classroom practices in the modern education system.

Key words: English for Specific Purposes (ESP), digital skills, digital literacy, hybrid classes, motivation

1. INTRODUCTION

The academic year 2020 encountered the challenge of completely changing the face of education worldwide. Adjustments to the learning models were made and everyone involved in the education process faced those challenges. The transition happened in a short period of time, so no substantial preparation was done on the side of the instructors and students. Throughout that turbulent period, it became clear that more than ever, digital literacy skills are essential for surviving and thriving in the digital society. In this altered educational landscape, the use of various digital resources provided a more significant number of possibilities for students to disseminate their learning experiences through a digital space.
As Campillo-Ferrer (2021) points out, the rapid spread of interactive technologies has facilitated the adoption of innovative approaches in higher education that help to promote collaborative learning, exploration, and research in online networked learning environments. It is in this context that alternative approaches to teacher-centred instruction have arisen and made a breakthrough in tertiary education. South East European University (SEEU) in Macedonia is not an exception in this context.

As Riapina and Utkina indicate, the challenge facing foreign language teachers is whether the instruction, which is based on individual differences approach and tailored to meet the preferences of particular students in the particular educational environment, may be replicated in another instructional context without much adaptation (2022, p. 277). Regardless of the challenges, it is imperative that university programs continue to provide effective educational services (Tang et al., 2020). For this reason, a wide variety of mechanisms have been put in place to ensure that teaching is carried out on a regular basis. Academics in all areas of study have re-examined their teaching resources and found new options for engaging students in light of the current crisis. In these unfavourable conditions, innovative approaches based on distance conferencing technology and online tools play an important role at this time of great tension (Villa et al., 2020).

Monzonís et al. (2020) examined the perceptions of pedagogy students who followed a flipped methodology during the COVID-19 crisis and found that most of them had improved their digital skills and increased their motivation thanks to this methodology. Despite these clear benefits for skills development and active participation of students, there are still some challenges that need to be addressed in more detail and that may be mainly related to teachers, students, or technological requirements. Authors such as Agung et al. (2020) highlighted some technology-based problems when they found that most students surveyed were not enthusiastic about online learning mainly due to a lack of access to the internet and other technological resources, which may be revealing the problem of the digital divide.

According to Babour (2022) online learning in higher education should be based on purposeful instructional planning, using a systematic model of administrative procedures and course development. It also requires the careful consideration of various pedagogical strategies as well as a purposeful selection of tools based on the strengths and limitations of each one. Finally, he points out that careful planning for online learning also requires that teachers be appropriately trained to use the tools available and apply them effectively to facilitate student learning.

According to Bloch (2013), another key problem that has to be researched more is how to put into practice new technologies that are continually being introduced. He believes that the choice of the most suitable technology in the ESP classroom depends on various factors, the most important of them being the problem the teacher wants to address and the learning objective that needs to be accomplished, which in numerous cases involves a belief that learning to use the technology itself can fulfill the needs of the learner.

Barbour (2022), points out the phase Emerging New Normal, which will be set after the pandemic is over, will have unknown levels of online learning adoption, but it is likely that it will be higher than in pre-COVID-19 days. Schools must have new levels of online learning infrastructure – technology and support – to reliably support students. Essentially, the investment in various tools and infrastructure that schools have made during the pandemic can continue to be used post-pandemic. Additionally, as teachers and students
become more comfortable with learning using these tools the chance that they will continue to use them post-pandemic increases significantly.

In light of these new emerging trends, the question is where does English for Specific Purposes (ESP) stand? Even more precisely, what is the standpoint of English for Information Technology in the hybrid teaching model? ESP students need to have a high degree of expertise in three components of digital literacy proposed by Hague and Payton (2010), namely functional skills, critical thinking and evaluation, and the ability to find and select information. In addition, ESP students are required to possess a more technical understanding of the five components of digital literacy, namely creativity, cultural and social understanding, collaboration, effective communication, and e-safety.

Both learning environments differ. Online learning depends on the technologies of delivery. In order to promote student-teacher interaction and provide feedback, different technological tools are used, such as online materials and resources, video lessons, conferencing platforms, emails, Learning Management Systems, and multimedia computer technology. In the face-to-face environment, the most important factor for learning is the teacher. The role of the teacher in the classroom is connected to students’ perceptions and learning outcomes. The stronger the teacher is, the more engaged students are. Dedicated and passionate teachers produce more confident students. On the other hand, researchers and educators believe that integrating technology into the classroom and combining it with face-to-face instruction increases students’ performance (Sommers, Owens, & Piliawsky, 2009). Montalban, in his research, came to the conclusion that introducing this hybrid proposal combining blended learning, flipped classroom, PBL, and a selection of materials, has proved to be a positive and enriching one, in accordance with the results discussed above. Moreover, the series of tasks implemented in all courses with the combination of synchronous and asynchronous activities has resulted in more dynamic classes (2021).

The hybrid model discussed in this paper was the concurrent teaching-learning model (also called co-seating or co-locating). In this model, the author taught some students who were in-person with her in the physical classroom, and at the same time, the teacher’s instruction was being streamed live through Google with other students logged in at home. Hybrid learning changes the focus towards more centralised, self-paced learning where technology plays a vital role. It is more than just a bare combination of online and traditional learning. On the other hand, when online instruction was used by itself it appeared to be as effective as traditional face-to-face instruction, not better and not worse.

2. LITERATURE REVIEW

The COVID-19 pandemic has changed all aspects of educational settings. It moved learning from classrooms to screens, then to a combination of face-to-face and online learning, then to classrooms again. In such a context the role of the teachers and students has significantly changed as well. These changes afforded new opportunities to explore how to use technology to achieve more effective and engaging learning. Here is where digital literacy among students finds its best purpose. In order to develop digital literacy skills among students teachers should create learning environments and opportunities where students can learn how to work with digital tools, analyse resources, be actively engaged in creating online content, and collaborate online.
Primarily, we need to focus on determining what comprises digital literacy. Regular change as a defining characteristic makes precise definitions difficult (Leu, 2002). A review of the literature (e.g., Bawden, 2008) reveals a plethora of definitions many of which are quite different in nature and often inconsistent (Eshet-Alkalai, 2004; Lankshear and Knobel, 2015). Gilster was the first to introduce the concept of digital literacy that he described as “the ability to understand and use information in multiple formats from a wide range of sources when it is presented via computers” (1997, p. 1).

Similarly, digital competence as used by the European Reference Framework is “the confident and critical use of information technology for work, leisure and communication. ... underpinned by basic skills in ICT: the use of computers to retrieve, assess, store, produce, present, and exchange information, and to communicate and participate in collaborative networks via the Internet.” (European Communities, 2007, p. 7). Defining the digital literacy needed for reading in digital environments has been challenging, with many terms proposed by researchers including “multiliteracies,” which suggests that meaning occurs in settings where written text is part of visual, audio, and spatial patterns of meaning (Cope & Kalantzis, 2000, as cited in Richardson et al., 2012, p. 297), and “new literacies,” which focuses on the skills and strategies necessary to work with rapidly changing ICTs (Leu, 2002; Leu, Kinzer, Coiro, & Carrmack, 2004, as cited in Richardson et al., 2012, p. 297).

According to ALA, Digital literary taskforce, digital literacy is defined as the ability to use information and communication technologies to search for, assess, develop, and communicate information, involving both cognitive and technical skills (2011). Representatives at the 21st Century Literacy Summit (2005) used the following definition of literacy to guide their work: “21st-century literacy is the set of abilities and skills where aural, visual, and digital literacy overlap. These include the ability to understand the power of images and sounds, to recognize and use that power, to manipulate and transform digital media, to distribute them pervasively, and to easily adapt them to new forms” (as cited in Richardson et al., 2012, p. 297).

To sum up, the concept of digital literacy is much broader than computer literacy, and instead represents an umbrella framework for integrating other inter-related sub-disciplines/literacies and skill sets such as technology literacy, information literacy, media literacy, and visual literacy (Covello, 2010; Martin and Grudziecki, 2006; Bawden, 2008).

Lastly, the concept of motivation is closely related to using technology in the classroom. Motivation is one of the most important factors when it comes to learning a second language and especially learning that language in school. “Motivation is the driving force behind the energy required to complete a task, a lack of motivation will give rise to a lack of driving power behind completing a certain task.” (Nugent, 2013).

Deci and Ryan identified various intrinsic and extrinsic sources of motivation, differentiated between autonomous and controlled motivation, and proposed three inherent needs that are involved in self-determination (Ryan & Deci, 2020). Those needs are: autonomy, competence, and relatedness. They motivate students to work towards improving their own growth and well-being, to initiate. Autonomy refers to self-endorsed and voluntary behaviour; competence refers to effectively achieved and challenged behaviour, and relatedness refers to the experience of feeling connected with others. If these needs are satisfied, a high-quality form of motivation will give rise to an individual with autonomous motivation may feel self-motivated and self-directed, whereas an individual whose motivation is controlled may feel forced, stressed and incapable (Ryan & Deci, 2017, 2020). From this perspective, student engagement is seen...
as an outcome of motivational processes; and autonomous motivation is a factor that allows students to engage constructively in online learning activities.

Unfortunately, there is no universal way to achieve this, because the techniques that work in certain conditions with certain students do not necessarily give the same results in other conditions. However, using what they are familiar with in our instruction can lead to greater motivation. Here is where the digital environment plays a crucial role. Students play, communicate, and share information mostly online using their smartphones, tablets, etc. Educators should find a way to utilize their avid desire to be online for language learning purposes. The ultimate goal in the classroom is to let go of the control on the side of the teacher and put more emphasis on the autonomy of the students.

To examine students’ motivation and engagement in learning in a hybrid environment, the researcher of this study selected and adapted various classroom materials and assignments that incorporated different digital skills with the three innate motivational needs. The paper below is an attempt to shed a light on what digital skills students need to thrive in today’s society and what can be done to achieve that.

3. ESSENTIAL DIGITAL SKILLS

Digital literacy can be defined as a survival skill in the digital era. It constitutes a system of skills and strategies used by learners and users in digital environments. Digital skills are ‘a range of abilities to use digital devices, communication applications, and networks to access and manage information. They enable people to create and share digital content, communicate and collaborate, and solve problems for effective and creative self-fulfillment in life, learning, work, and social activities (UNESCO, 2017).’

There are many definitions of what constitutes digital literacy and whether or not it should be interchangeable with the term information technology literacy (ICT). That poses a challenge for an effective design of courses that integrate digital literacy. It also raises the questions of what students really know about technology use and what we think they know and what aspects of digital literacy should all students know regardless of their academic major.

The digital skills used in this particular course were taken from a framework that has been designed to support providers, organisations, and employers across the UK who offer training for adults to secure their essential digital skills. The framework sets out 5 categories of essential digital skills for life and work: communicating, handling information and content, transacting problem-solving, and being safe and legal online. The essential digital skills framework defines the digital skills adults need to safely benefit from, participate in and contribute to the digital world.

Digital learning technologies help students in different ways:

- Students learn more efficiently: digital learning tasks provide students with immediate feedback. This helps students and instructors focus more on the tasks where further understanding is needed.
- Students learn more completely: digital learning provides a richer learning environment consisting of discussion and idea sharing supported by the use of collaborative learning tools.
- Students learn the best way: digital learning is a combination of best learning practices that involves hands-on experience, discussions, flatted classrooms, and blended
learning. All of them combined create more active and engaging learning environment that uses contemporary theories of learning.

- Students learn anytime, anywhere: digital learning makes education easily accessible and available to students on a global scale. It also promotes and facilitates lifelong learning.

Given below is the essential digital skills framework which is used a basis for creation of the course assignments.

![Fig. 1 Digital Skills Framework](image)

It is clear that the opportunities provided by technology have considerable implications in the educational setting. That means learners need to learn and develop a new set of skills and learning strategies. Teachers on their side need to find a wide range of different digital resources that will help develop these new skills.

4. OVERVIEW OF THE COURSE

The ESP course discussed in this paper is designed according to students’ needs and it includes a number of 21st century skills related to using technology appropriately and effectively. The course encompasses the three categories of 21st century skills:

1. **LEARNING SKILLS** - critical thinking, creativity, collaboration, and communication.
2. **LITERACY SKILLS** - information literacy, media literacy, and technology literacy.
3. **LIFE SKILLS** - flexibility, leadership, initiative, productivity, and social skills.

The course provides students with a solid framework of knowledge to enhance and further develop students’ digital literacy skills in order to achieve success in their university studies. There is no single book assigned for this course, but rather a selection of various materials from different sources.

The grading criteria include preparing for a job interview and writing a CV, creating a LinkedIn profile, website evaluation, and persuasive speech. The model of teaching is a concurrent hybrid model with the majority of students participating in face-to-face instruction. The rest of the students followed the class through Google Meet.
The grading criteria are as follows:
1. Final exam – 30%
2. Participation (F2F/Online) – 10%
3. Website evaluation – 10%
4. Discussion Forum – 10%
5. Mock Job Interview – 15%
6. CV/LinkedIn Profile – 15%
7. Elevator Pitch – 10%

The study spread over one semester during the academic year 2021/22. The time frame was September – December 2021 with a total of 15 instructional weeks. The students had four hours of the ESP course twice a week. The post-Covid-19 period provided enough time for the students to get accustomed to the idea of some of them having online classes as opposed to the rest having classes onsite. Moreover, the students were a crucial part of the research and their continuous feedback served as a basis for the study. The author provided the same content, course materials, assignments, and the same period for completing the tasks to both groups.

To help teachers set the authenticity of classroom assignments and experiences, Newmann and Wehlage (1993) formulated five standards. Each standard is measurable on a scale of 1 to 5. The proposed standards are higher-order thinking, depth of knowledge, connectedness to the world beyond the classroom, substantive conversation, and social support for student achievement.

These standards according to Newmann & Wehlage (1993) are designed to quantitatively represent the degree of authentic instruction observed within discrete class periods (p. 11). These standards are used as a framework for teachers to plan and assess critically their goals, strategies, and outcomes. They find their value in this particular study as well. Given below is a short description of the assignments used in class accompanied by a particular digital skill as explained in the abovementioned digital skills framework. Furthermore, each assignment was carefully selected having in mind Ryan and Deci’s innate motivational needs.

**4.1. Digital skill 1 - Communication**

The first digital skill implemented in this course was communication. It encompassed the ability to communicate, collaborate and share information online. Students were required to create and send online content (emails, presentations, feedback, etc.) and initiate and participate in Google Meet lessons. They learned how to share screen, how to use the chat and how to effectively communicate with their peers in the classroom.

Digital collaborative environments range from small single-purpose tools (e.g., GoogleDocs and Wikispaces) to complete collaborative virtual learning environments (e.g., Blackboard, Moodle, Schoology, Edmodo). Social networking platforms are also included in this category. Moeller & Reitzes (2011) in their comprehensive study on integrating technology with student-centred learning suggest that these collaborative tools can assist synchronous and asynchronous collaboration starting from small assignments to semester-long projects between classmates, between students at different schools, students and teachers, and teachers and teachers.

In a face-to-face learning environment, students put a lot of emphasis on the verbal and social interaction between the students and the teacher. They rely heavily on verbal cues used by the teacher when explaining the assignments. Thus, they expect that the ability to decide what was important when learning in an online environment would not provide
verbal clues and would be an insufficient communication process. Through interaction with the instructor in the face-to-face environment, the instructors’ tone or emphasis on certain parts of the task was a signal for the students what they should be paying attention to. They were not sure that they can infer that through online classes.

However, at the end of the semester, all of the students agreed that the hybrid mode improved teacher-student communication. The change occurred because they understood the reliability of online communication and how fast information can be exchanged. Students appreciated the fact that they don’t have to wait until the next class to ask a question or express their concerns. Some of the shy students benefited from writing emails or chats because their lack of confidence to ask in class was substituted with the opportunity to freely ask for additional information. In summary, Google Meet as a form of communication was greatly accepted by the students and they all found it to be very beneficial.

4.2. Digital skill 2 - Problem-Solving/Communication

The second skill implemented in the course was problem-solving skill which deals with finding solutions to problems by using digital tools and online services. Students used the Internet to find information to solve problems and to find sources for their class activities. This digital skill was combined with communication skill, due to the nature of the assignments. As part of their syllabus, students were introduced to job hunting skills which include preparation for job searches, designing presentations, doing mock interviews, and giving constructive feedback. For the students, it was the first somewhat hands-on experience with actual job preparation skills. They watched tutorials on how to answer different interview questions and engaged in trial interviews in class with a combination of onsite and online students. They also learned about the differences between an onsite interview and an online interview.

As a final step, students were divided into groups of three according to the instructor. That was done in order to avoid the same groups of students working together on different tasks. There were four groups of students who did the interviews onsite and one group who did it online. In the concurrent teaching model, the job interviews were done synchronously and students were expected to write feedback on their colleagues’ performance. Students gave their best to create a job interview that resembles a real one as closely as possible. In advance, as homework, they watched some mock interviews online to get an idea of what is expected of them.
4.3. Digital skill 3 - Handling Information and Content

The essential question behind this digital skill is whether or not students can evaluate what information online is reliable, what is trustworthy, and what is not. Although students are skillful in using technology, they cannot simply evaluate everything they find online. They don’t possess the necessary skills for assessing the validity and reliability of online materials. They had never had any kind of training or information on how to do that. They solely rely on their intuition and occasionally they do cross-check with other sources. It is believed that exposure to technology in the early years gives students a more significant understanding of technology, but this is an area where that is not the case. Just because students are able to search and find different materials on the Internet that does not necessarily mean they can evaluate the authenticity and the relevance of such materials.

Students had a website evaluation assignment where they were expected to evaluate the reliability of a chosen site in terms of its authority, purpose, coverage, currency, objectivity, and accuracy. These criteria dealt with the content of the websites rather than the design. Students found this to be of great importance since they were never taught to look at websites in this manner. This small training proved to be beneficial and it improved students’ skills and confidence in searching for the right materials online. The evaluation included the following: checking that the website has a valid certificate; being cautious with poor-quality websites; checking the currency; checking for biased or false information; being aware of sponsored websites.

All of the assignments were also saved on students’ drive and uploaded on Google Classroom. That way, they also learned about digital storage. Moreover, they learned about different search strategies on Google to help them find the information they are looking for.
4.4. Digital skill 4 - Transaction/Handling information and content

This particular skill deals with the ability of students to access public services online, apply for services, buy, sell and manage transactions online. In this course, students were expected to create a CV using an online template (from Google Docs), upload the CV to an online recruitment site, and in addition create and publish a profile on LinkedIn.

The digital skills in this segment dealt with job-hunting skills that were learned and discussed in class. After the CV completion, students were required to search online for a local IT company that has an open call for interns. They used the company’s online recruitment site to apply for the position. The students were very motivated to do this right, as it was the first time to ever be engaged in such a real-life assignment.

4.5. Course Evaluation

In order to investigate students’ motivation and engagement in the course students’ evaluation was administered throughout the Language Centre. The students’ evaluations
are semestral surveys on the success of the course and the effectiveness of the course material. The evaluations are done online through Google Classroom and include 16 statements that cover the materials used in class, the course content, and the instructor’s role. Students respond to questions 1-16 by using 5-point scale, from excellent (5) to poor (1). In the end, they are required to provide suggestions for further improvement of the course/instructor or comment on any relevant questions regarding the course. The questionnaire is created by the Quality Office, the activity is managed through University’s e-Learning Center and it is completely anonymous.

Given below is the student course evaluation for the ESP course in the academic 2021/22.

![Fig. 5. Students’ evaluation](image)

After examining students’ answers at the end, a few points need to be noted:

- According to students, the course encouraged them to think critically (analyse and evaluate information in order to make judgments)
- Students found opportunities for practical application of the knowledge
- The online communication, the variety of teaching methods, and the constant feedback provided by the instructor were rated with the highest score. This is closely related to students’ motivation and desire to learn and perform better in class.

Students’ motivation was connected to the tasks they were assigned to do in both learning environments. The more challenging task led to increased motivation regardless of the learning space. Therefore, the instructors should think carefully about how to motivate a digital learner by creating challenging tasks that can be accomplished in a comfortable zone or space they are used to. However, the findings of this research cannot be representative of every hybrid teaching-learning environment that tends to increase students’ motivation and engagement. These results are drawn from a single experience with a limited number of students and it would be advisable for this analysis to be compared and contrasted with similar ones. Only then the results will be more conclusive.
7. CONCLUSION

The students that were part of this study belong to the generation of 'digital natives', whose main characteristic is being skillful at using technology, always connected, social, and in a constant need for interactivity. They were also students who study Computer Sciences and Technology, thus making them even more adept at technology use. The main purpose of the study was to discover whether students’ widespread contact with digital literacy can be transferred into the learning environment given the circumstances.

Related to motivation was students’ perception that they can stay more focused in a face-to-face environment. Even at the end of the semester, students reported that the greatest disadvantage of learning in a digital environment was their inability to fully concentrate while being online. This is a challenge in the digital world, as often is reported in studies. The Z Generation is constantly moving from one resource to the other, imagining that multi-tasking is really possible. Many recent studies have shown that multitasking is not really possible and leads to errors and distraction. It has been proven that it’s impossible for the brain to process more than one string of information at a time. That is the reason why students believe they can do many tasks at once when actually a lot of information is slowing them down. An important part of instruction in any classroom today is to demonstrate to learners that they must manage their time efficiently and concentrate on one task at a time.

The study can propose a few areas for further improvement:

1. Students’ training on developing digital skills and digital literacy – the study has demonstrated that students lack the skills and knowledge to evaluate valid online materials. Apart from using phones and laptops for writing documents and creating presentations, they lack formal training for further development of various digital skills. Once the necessary set of skills is recognized SEEU has to find a way to implement that in the curricula.

2. Creating a new course Digital Literacy that focuses on the essential survival skills in the digital society. Such a course was first introduced in the summer semester of the academic 2019/20 as a free elective course. It is open for everyone to enroll, but the majority of the students are the ones studying Computer Sciences. By the end of the course, students will be able to search for and access online information successfully using a variety of digital tools; critically evaluate the reliability of online resources and distinguish between credible and untrustworthy sources; demonstrate an understanding of ethical issues related to the academic context; understand proper referencing in order to avoid plagiarism; learn how to effectively communicate in a professional manner; understand the basics of being safe online and the positive and negative aspects of creating an online identity; investigate cyberbullying and identify possible solutions for reducing online harassment.

In the ever-changing classroom dynamics of the twenty-first century, teaching needs to be innovative in order to be effective. The youth of the present age are members of virtual societies communicating mostly through the digital medium. This digital communication has its effects on traditional classroom lectures. There has been a marked decline in basic language skills. Learners are less attentive and need more motivation. The interactive method of teaching is the best method of teaching language. But for this, the learners have to participate in the classroom and contribute something of their own. Learners have to be taught in a method that interests them and makes the language taught to them relevant in context.

To conclude, we have never before seen such a dramatic change in the education landscape in such a short time period. Therefore, it will be vitally important to continue to observe the potential positive and negative impacts that such a shift brings.
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