

THE ROLE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN SELF-REGULATED LANGUAGE LEARNING

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Abstract: According to current research, effective learning in the 21st century requires motivation, competence, and efficient learning strategies. As a result, teaching should assist students in becoming aware of their strengths and weaknesses in a learning situation and assist them in developing the abilities and strategies necessary for lifelong learning. Learning a second (L2) language, which is seen as necessary in many ways in a globalized world, means improving language skills. The application of information and communication technologies (ICT) makes learning much easier when it is expected to create an environment that effectively combines pedagogical, social, and technological opportunities in tools and activities for students to build their own knowledge and inspire them to learn L2.

More recently, teachers have relied on technological innovations that can help them encourage self-regulated learning in students. Many software products use the principle of supporting self-regulation by providing the necessary help and support to encourage independence. So, software products have developed that help in the self-regulation of learning by providing a framework where a student can create different content and use HTML language to display information about various topics in the form of texts, diagrams, pictures, charts, tables, audio, and video clips, which together make a tool for L2 learning.

Keywords: self-regulation, use of ICT in L2 learning

1. INTRODUCTION

Today, information and communication technologies (ICT) is an integral part of our lives, and young people have grown up using a variety of ICT tools. Therefore, it could be assumed that their application for second language (L2) learning should not present any difficulties. The ability to use ICT to develop self-regulated learning skills is another aspect of the role of ICT in L2 pedagogy. There is already a variety of software that allows students to organise themselves into groups, negotiate, and share their goals, plans, and strategies, as well as assess whether the goals have been met, whether the plans were sufficient, and how effective the strategies were. Thus, ICT plays an important role in developing effective learning strategies in individual and collaborative learning environments, and contemporary education is expected to help young people become aware of their strengths and weaknesses in the learning situation. In addition, students use technological opportunities to develop skills and strategies in L2 learning so that they are prepared for self-conscious adaptation to changes. Thus, students are proficient in this field and in order to reach the expected levels of achievement, the aforementioned possibilities are used.

Neurological research has determined how much the human brain changes, organizes, and reorganizes during life under the influence of stimuli from the environment. In the field of social psychology, researchers state that the culture and setting in which young people nowadays grow up influence their thinking (Prensky, 2011). The findings also indicate that their basic abilities are multifactorial, and in the literature, they are also called "digital natives," who use parts of the brain different from previous generations to process information (Jukes & McCain, 2007). Thus, differences were noted in the way of thinking, in processing the information that surrounded them, and in interaction and communication with others. The way young people receive information is also related to the way they process that information. It is believed that they are looking for quick feedback on their knowledge and quick answers to their questions and are more inclined to multimodal content, i.e., content presented with images, sound, and video. They tend to learn best when surrounded by dynamic media with a high level of interactivity; they use a random approach to the content instead of a linear approach, and as soon as they are offered static text and images, they lose interest and attention to the content. Most of them are visual types, so verbal or textual content supported by visuals increases their level of memorization and motivation to acquire knowledge (Ivanova & Ivanova, 2009). It is even thought that the characteristics of young people point in such a direction that it is reasonable to assume that the virtual world will be almost as important to them as the physical one. The differences between "generation alpha," as they call the generations born in the 21st century (Ivanova & Ivanova, 2009), and the older generation, i.e., digital newcomers, are seen as the habits of the newcomers for long-term planning and expectations, whereas for the young generation everything is important now and as soon as possible. Student entertainment has become increasingly dominated by social networks, electronic technology, and streaming services, while traditional television has experienced a decline in popularity. Changes in the use of technology in classrooms and other facets of life have affected this generation's early learning experiences in comparison to those of previous generations. They were born at a time when there were fewer books and television, so the way they direct their attention is different. They direct their attention non-linearly,

and their focus is on several things at once. The large amount of information they receive in the digital environment affects their perception skills so that they are labelled "screenagers" (Jukes & McCain, 2007). They see the method of trial and error as a metaphor for learning because they grew up with digital games. This requires a new approach to teaching activities that should facilitate meeting the burden of time in which they develop, thus with lifelong learning and language learning in a globalised world. This further implies that self-regulated learning is a competence that includes motivation. This clearly demonstrates the teacher's complex role in the process of learning and guiding students in the use of ICT in L2 learning.

2. ICT AND DEVELOPING SELF-REGULATION COMPETENCES

It is a well-known fact that success in studies largely depends on the level of development of students' self-regulation competencies. During COVID-19 pandemics, there were fewer opportunities for face-to-face communication, and the introduction of online classes heightened the need for self-regulated learning. Research (Achterberg et al., 2021) indicates that the process of closure due to the pandemic has caused various problems for young people, among which are reduced opportunities to develop positive strategies for dealing with the situation. This is reflected in their behaviour, such as boredom, being passive, declining participation in academic activities, attachment to social networks, etc. Neuroscience findings also indicate that social isolation has negative effects on the nervous system and behaviour, and in a situation of no face-to-face communication, ICT support for interaction may reduce negative effects (Orben et al., 2020).

In addition, self-regulation includes affective, motivational, and cognitive aspects that allow an individual to adjust activities and goals aimed at achieving the desired results in accordance with changing circumstances. Self-regulation is related to the issue of the proactive principle as an essential characteristic of this phenomenon and highlights the same as an approach to L2 learning by which students transform their own mental abilities into academic skills (Lončarić, 2014). In the process of self-regulation, students initiate their own meta-cognitive processes in L2 learning, activate motivational resources, and direct their thoughts and feelings toward achieving goals. Proactive attitude is seen in independent goal setting, personal initiative, perseverance, progress monitoring, and adaptation skills (Zimmerman, 2001). It is significant that in most models that seek to encourage self-regulated learning, the deliberate implementation of certain strategies, processes, or responses aimed at certain academic achievements is required. Most of the models consider loops and feedback information in the learning process. In addition, most authors emphasise the importance of the motivational dimension of self-regulation in learning, which explains how and why individuals self-regulate, i.e., why they choose certain strategies or ways of responding on the path of self-regulation. The research in education over the past two decades does not provide arguments for the assessment that education is organised in a way that would go in the direction of stimulating situations in terms of proactive attitudes and self-regulating skills in dealing with difficult tasks or frustrating obstacles in achieving goals (Zimmerman, 2001). Findings (Gojkov-Rajić et al., 2021) also indicate that the L2 learning process should be accompanied by external motivation as a support for self-regulation, which includes more serious dealings with student guidance if they have not yet reached the default level or if it has weakened, with self-evaluation as an important part of self-regulation of L2 learning

3. ICT AND L2 LEARNING MOTIVATION

Some research (Susilavati & Supriatno, 2020) indicates the ways in which technology can encourage L2 learning motivation. Good effects are provided by assignments based on interaction between teacher and student, as well as those that support interaction in a group in which the student's language competence is proved, as the first step towards motivation. Also, creating the possibility to cope more easily with difficulties in independent learning, efficient time management, orientation towards completing an assignment, developing meta-cognitive skills, and persistence towards the goal (Sitar-Taut, 2021) are good examples of encouraging L2 learning motivation. In addition, Susilawati and Supriatno's (2020) research with a group of students finds that combining L2 learning with the use of WhatsApp contributes to increased L2 learning motivation. Through the WhatsApp Messenger platform, learning takes place optimally, as students and teachers can communicate and share PowerPoint files, Microsoft Word files, JPG files, voice notes, videos, and other links to learning resources. The results of this study pointed out the need for learning activities and a selection of learning media adapted to the context of the learning environment because there is no single method that can be used for all situations and all individuals.

Prajana (2017) also states that the way in which ICT is used as a learning medium contributes to effective L2 learning because it provides students with better and faster learning opportunities for the material that is taught. Also, tasks in the discussion between students and further exchange of ideas with teachers can be organised outside of formal teaching hours. His experience in using the WhatsApp application is that it is convenient because it is based on the mobile phone and social networks and integrates with different applications that are used to communicate with other users, starting from education, business, entertainment, etc. The same author concludes that the applications that are

being developed today, such as chatting or broadcasting messages, are already widely used, but they can also be used for collaboration and sharing information for the purpose of e-learning.

4. INSTRUCTING STUDENTS IN SELF-REGULATION

Researchers are interested in teacher's role in instructing students in self-regulation of meta-cognitive and motivational L2 learning strategies, a proactive attitude toward the selection of learning goals, structuring content, and deciding on learning and teaching strategies (Zimmerman, 2001). If the student has not already reached the desired level of self-regulation, he should be directed toward the development of meta-cognitive abilities and other factors of self-motivation for L2 learning. Research findings (Zimmerman, 2001) generally lead to the conclusion that weak self-regulation of L2 learning is reflected in poor academic success and it is a result of insufficient familiarity with self-regulation strategies. The key point of these observations is that students are ignorant of the ways and skills of self-regulation by which they achieve the desired outcomes. However, this does not imply that possessing self-regulation skills is a prerequisite for safely managing L2 learning activities. As a result, it is possible for students to develop self-regulation skills while learning a second language; however, other factors, such as motivation, personality traits, environmental variables, etc., may hinder success.

When using a specific self-regulation approach for L2 learning, social cognition theorists emphasize the importance of students' beliefs about their ability for motivation (Zimmerman, 2001). Findings indicating that self-regulation of L2 learning frequently demands an investment of time, cognitive control, attentiveness, suppression of conflicting goals, and investment of diverse resources for self-regulation are significant for teachers. If the learning goals are clearly defined, they will be appealing enough to students to motivate them to self-regulate their learning. Lack of a target orientation leads to the development of an anti-academic identity and rejection of academic accomplishments in favour of reference group and individual aspirations (Lončarić, 2014). Alternative goals and values are frequently embraced under these circumstances, which appear to be acts of self-esteem defense and result in the employment of defensive self-regulation in an effort to shield the ego. In addition to the aforementioned attribution patterns, there are others, including external attribution of failure, task avoidance, cognitive non-involvement, surface cognitive processing, and self-handicapping. Failure can also contribute to a depressive pattern of cognitive and motivational beliefs and strategies, including stable internal attributions of failure and unstable external attributions of success, helplessness, procrastination, and apathy (Lončarić, 2014). This pattern is characterized by reduced activities and withdrawal from tasks and interactions, self-adopted schemes about their own incompetence, and ejecting situations that can bring them additional opportunities for their own negative self-evaluation and negative emotions. The worst-case scenario is that students could purposefully create these circumstances, which could be changed if the teacher were to be informed in time (Lončarić, 2014). Thus, the findings indicate the possibility of acting in terms of self-regulation corrections and leading the way to a safe path through returning to the motivational strategy as an important component of learning self-regulation (Gojkov-Rajić et al., 2021).

5. CONCLUSION

It could be concluded that the factors of motivation share the following traits: they cause a particular type of activity to be triggered to varying degrees, direct the activity toward a goal, and prepare a person to engage in a particular activity with more or less dedication for a certain period of time. In most cases, the motivation for learning is influenced by internal factors as well as those present in the social and natural environments of the students. Therefore, in addition to internal factors that are under the control of students, factors that depend on the teacher, as well as contextual factors, are important. Each student develops a certain motivational structure during learning activities, which, on the one hand, consists of learning behaviours, i.e., certain activities, persistence, achievement of learning goals, quality of learning, and, on the other hand, own motivational beliefs and strategies (Wigfield & Eccles, 2000). A well-structured hypermedia learning system or well-designed ICT learning and teaching content can be a significant help in all of this.

A high level of dependence on ICT is obvious for a generation of young people who use the Internet on a daily basis. Fast information flow makes them distinctly different from previous generations. It can be said that they live in a computer world; they are easily accustomed to technology, surrounded by video games, social networks, and YouTube. So for young people who are now at university, it is considered that they live at the time of virtual social networks and wireless tablets. Their needs are focused on finding the virtual roots of their problems. An environmentally friendly lifestyle is their priority, and these are young people who are characterized by multiculturalism and multilingualism.

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