

TECHNOLOGY AS A SUPPORT FOR CONSTRUCTIVE LEARNING

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Abstract: *The integration of high technology in education has been the topic of many conferences. Being a new concept, many teachers feel anxious when having to use it, whereas students show much excitement. When choosing to integrate technology in their LES (Learning Evaluation Situation), teachers need to have their pedagogical goals established. As Peter Lindsay puts it, “we do not decide on the technology and let that decision dictate the experience” [1]. This paper explores the importance of using technology in a constructive way in ESL (English as a Second Language) or EFL (English as a Foreign Language) classes. Most often the teacher does not manage to provide each student with feedback. Such feedback represents the building blocks in students’ learning process. Most often they become demotivated because they have no idea of how they could improve. Not only is feedback through technology a way to save teachers’ and students’ time, but it also gives the latter the opportunity to use metacognitive thinking. Teacher’s control and guidance in view of overcoming their difficulties is indispensable. While monitoring the students, the teacher intervenes correcting them in view of putting them back on the right track so that they finally follow the trajectory drawn in the LES to obtain the final pedagogical goals.*

Keywords: technology, ESL, EFL, feedback, education

1. Introduction

Over the last decades, technology has been much more integrated in education. It has been adopted to the extent that active learning environments have been conceived considering students’ possible needs. Such large classrooms impress by the high technology equipment where the teaching can turn from a short lecture to teamwork and then back to lecture. A group of four students can seat at a table and a screen in front of them. By the touch of a button of their laptop, each student can have the other see his work. If needed, they can talk to the whole class using the closest microphone. Furthermore, “Active Learning (AL) is commonly used in describing pedagogical

approaches that engage learners actively in classrooms, with an emphasis on problem solving, inquiry and reflection”[2].

Peter Lindsay notices some teachers’ choice of technology as a way to control and keep their students’ attention, as a replacement for a teacher’s skills of classroom management. “More speculatively, technology offers something of which educators are in short supply: power-or at least its allure. Education can be a frustrating endeavor, as students do not always-and in some classes rarely-conform to our wishes” [3].

Other teachers get anxious facing so much technological innovation, feeling “[...] daily bombarded with the latest, greatest

technological way to present material, engage and assess students[...]” which requires much of their time to learn its functions [4]. In addition, “The focus often seems to be on technology rather than our teaching objectives. We often feel that we are asked to change our teaching styles and methods to accommodate technology rather than to use technology as a tool to accomplish our goals” [5].

Teachers’ endeavours to use technology just to be current sacrifices certain pedagogical aspects. Young teachers need to be trained about how to integrate technology in their LES during a course such as, “Integrating Digital Technologies and Social Media in Learning Environments” at Concordia University. Considering students’ learning ends, experienced teachers only need to learn the functions of technology and find how they could best make use of it, as Peter Lindsay also believes that as teachers “we would need a vision of teaching (of its activities and its methods) in which emerging technologies excite us only insofar as they serve pedagogical ends, rather than those of their own making” [6].

Active learning environments are suitable for students with high levels of English. However, not all approaches fit an ESL group of students. In institutions where the language levels are homogeneous, such as those using the International Baccalaureate program, any interactive methods could work. With this approach, a teacher’s scaffolding method which “refers to a process in which a more knowledgeable speaker helps a less knowledgeable learner by providing assistance” is recommended [7].

Even if each of the students’ broad knowledge background is always the stream for many discussions that emerge in interesting creative projects, the flipped classroom strategy is not the best approach for second language learners but it is what university students studying sciences seem

to prefer. During the 2017 Conference on Technology in Education in Montreal, a group of students from McGill University - Claire Trottier, Joanna Li, Ali Mohammed, and Chalani Ranasinghe - supported the efficiency of their listening to the instructor’s recording lectures outside the class rather than attending the lectures themselves. Students prefer to play the lectures more times or rewind allowing for more exact re-taking.

No other pedagogical perspective is more praised than the Constructive Pedagogy which is used worldwide. Even if such pedagogical concept is based on a teacher’s ability to guide students and place them in the limelight of the pedagogical process, there is a wide range of approaches that teachers could use depending on students’ language level and the goals of the lesson.

Being the topic of many research studies in all disciplines, Active Learning Environment is much promoted due to the successful learning results. An Active Learning Environment implies a strategic plan of the LES (Learning Evaluation Situation) and a justification for the use of technology. Not only are results aimed at being the highest, but also the achievement of some intersecting competencies.

Instructors from Montreal universities and colleges have contributed to the organization of conferences on technological innovation in the studies of education every year. Mr. John Bentley, the coordinator of the teaching department in Concordia University, strongly encourages teachers to use the high tech laboratories with their students.

2. The study

This paper explores the use of technology in a constructive way, focusing on feedback as a way of evaluation, but mostly favoring the process of learning. Being meant to make the learning process easier, technology must be used wisely. To attain

the pedagogical goals at the end of the class, an interactive environment is indispensable in an ESL or EFL class. Technology can be used as a means to detect students' needs.

Feedback through technology programs represents the building blocks in the students' knowledge. Ormond Simpson corrects the common saying in education "assessment drives learning" with "feedback drives learning"[8]. As part of the assessment process, it is a way to notice learning difficulties and research their solutions. Tests are sometimes considered a burden, "breaking what might be a pleasant student life"[9]. Through the testing process, teachers can answer students' learning difficulties which make possible the resuming of the learning process once clarifications have been made.

At the beginning of the first year of study in a Faculty of Engineering, the students' levels of English varied significantly. Because of notable issues with the language level, some of them showed an urgent need for tutoring. Tutoring possibilities inside the institution were not satisfying, and the classrooms were always busy. The use of technology was the best answer to such needs. Five students were very determined to improve their English level. Instead of seeing their teacher separately during established tutoring hours, students could interact with their peers in a group when working on different assignments. The teacher intervened only when necessary and kept track of all the students' involvement in discussions.

When reading engineering texts, students encountered difficulties as they could not follow sentence structures. During the tutoring hours, they used Google slides where they could interact as a group. When approaching a text, they had to find the main idea in each paragraph. Each student had a chance to decide upon it and write it down.

Expressing the need for using reading strategies, the teacher posted documents using Google classroom. The following meeting after having read them, students could put them in practice using audio conferences through their Google account. The teacher's inquiring questions such as factual, conceptual, and debatable revealed students' issues in understanding the text.

The formative evaluation process not only implies a teachers' reflection on the improvement of skills and knowledge acquired at the end of the semester, but also the pedagogical monitoring and intervening to answer the needs of the students. Receiving feedback individually, students could finally construct the meaning of the text used to teach engineering specialized words in context. At the end of the class, they could finally empathize with the text revealing their insights gained.

Analyzing students' comments, at the end of the first semester, allowed the teacher to reflect on new pedagogical methods. During the evaluation at the end of the second semester following the learning process in which students had benefited from such feedback, students enjoyed writing tests as they were well-prepared and felt confident.

Another situation is the Covid-19 pandemic situation, where institutions had to close and continue their activity online by using platforms such as Moodle. The use of this online platform confirms that the already existing interpersonal connection between the teacher and the students helped the teaching and learning processes occur in satisfactory ways. Students were present knowing the teacher's expectations. Students were content about the chance they had to practice quizzes that provided them with an immediate answer whereas the teacher was available to answer their questions. At the same time, they could

keep in touch with the whole group and the teacher through audio conferences.

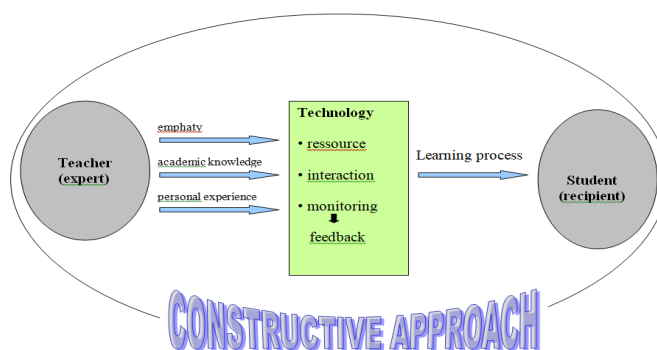
3. Conclusion

Recent research has shown classroom design as counting significantly. However, when applying technology without teacher's contact with students, there is no pedagogical approach. As Peter Lindsay puts it, “distance learning’-as on ‘online’ learning-is a threat to human existence” [10]. Through classroom management, interpersonal communication is progressively established. Integrating technology in the LES is highly beneficial when there is communication between the teacher and the students. Teacher's conceiving the LES and animating it represents the electric power transmitted through the most suitable type of technology and approach to the recipients who are the students (see figure 1). Teacher's control of the classes is important in more ways. It leaves no room for

doubting about students' academic honesty. Differentiation is not easy to install in a non-homogeneous language level group. Through technology, the teacher can provide each student with the material necessary. According to their teacher's feedback, students can also focus on the improvement of the learning difficulties detected.

Students' successful learning results come from a web of merging sources such as teacher's empathy who constantly adapts the teaching methods according to the students' needs, academic knowledge, and pedagogical experience. The use of online or distance education should only be adopted in special situations such as students with disabilities or pandemic crisis. LES based on face-to-face teaching with technology integrated in view of facilitating students' understanding of some teacher's foreseen understanding difficulties is the ideal.

4. Figure 1.



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