

The use of technology in the ESL classroom: A discussion

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Abstract

Over the last 20 years, technology has become a leading force in education and has consequently changed not only the resources available in the ESL classroom, but also impacted the types of decisions that teachers face when applying technology to daily lessons. Under discussion will be the results of how technology has impacted learner outcomes to date, what responsibilities school systems have to support teachers and learners in technological adoption, how and when (and when not) teachers should use different devices in the classroom, as well as a recommendation of resources to help teachers get started. Along the way, the paper will discuss some best practices, and why it is imperative that ESL learners develop technological proficiency. Technology should be embraced, without the risk of replacing traditional means of lesson delivery and recording.

Technology has been the dominant force in the last twenty years when it comes to change (Qureshi, 2020). Every industry has witnessed change thanks to this digital transformation, from increased speed, power, or velocity. As an example, fashion retailer, Zara, replaces three quarters of a store's merchandise every month thanks in part to the speed of technology, enabling the company to respond quickly to consumers' whims (Mukherjee, 2020). It would be difficult in past years for any retailer to achieve such efficient control over the creation, production, and distribution processes without technology, specifically when it comes to what is produced, as well as in the way things are sourced, designed, and delivered.

Technology has remained the most promising factor in recent years in any industry when it comes to supporting organizations in pursuit of optimal results. Like any force in nature, however, technology has not



been an equal playing field for all and has affected industries differently as well as benefited players within those industries differently. Productivity gains have varied widely, too, where the biggest winners have been those poised on the forefront of technological innovation (Qureshi, 2020).

Notwithstanding, the ESL industry is conducive to technological innovation because it is in the business of information dissemination, a process that can be supported by gadgets and devices. Over the years, I have witnessed the continued and growing impact that technology has had on the ESL industry. When I started teaching in the early 2000s, technology was not advanced enough to support much in the way of online applications and content. Currently, it is relatively simple to find ESL worksheets, audio-visual media, and interactive content online, not to mention the myriad offerings of full-scale English content producers. ESL book publishers have similarly embraced technology, often adding free downloadable materials like teacher's guides, audio or visual components to their websites to support teachers, and developing companion sites for student practice. For those ESL teachers who have been around for a while, it was not that long ago that cassette tapes were packaged at the back of textbooks.

Technological innovation in the way of devices has permeated the broader education industry, as it has in the ESL classroom where many devices like data projectors, smartboards, laptops, and tablets are now commonplace. Laptops and tablets have not always been the standard, however, and there have been some interesting ways technology has been integrated into the ESL classroom of yesteryears. A suitable example is in South Korea, a country which has proven over the years to be an early adopter of technology due to the small size of the nation, where natural resources are scarce, and innovation is crucial to retaining a competitive international advantage in business and trade. During my years teaching English in Korea, I witnessed some efforts to augment the classroom experience through the use of creative applications of technology.

In 2010, the Korean government launched a pilot project to introduce a robot, nicknamed EngKey (short for English Jockey) into select public elementary school ESL classrooms. Primarily geared for smaller school districts that were unable to attract English-speaking teachers, the robots were fitted with a screen in place of a face, which would in turn broadcast the face of a live English teacher who would be working remotely from another country. This allowed for real-time interaction between robots and learners. As a secondary function, EngKey offered an offline application by using voice-recognition technology to enable learners to practice their English pronunciation.

The robots were a masterful way to solve a practical staffing problem, and it was emphasized at the time that the robots were never designed to replace a live teacher in the classroom. South Korea's early efforts to support English learning were laudable, in that the country applied new technologies to address an existing



problem. In fact, South Korea's legacy of adopting early technologies primed the country for their leading role it holds today in innovation, where it remains highly competitive in the technological sector.

This example of introducing robot technology in classrooms shows that educational settings have needs that technological innovation can satisfy, but I think we can agree that simply having devices in the classroom is not enough to improve scores, nudge motivation nor replace a human teacher. Some important questions teachers may ponder are, perhaps, despite all of these *new* and *improved* classroom tools, have technological improvements in the classroom yielded richer results among our learners? It is equally important to ask: Are some forms of technological media more conducive to the ESL classroom than others?

Technology is one way that school boards and ESL teaching providers remain competitive, as well as relevant. ESL learning providers in Canada have pressure to respond to the increased expectations of the market (our learners), which require significant investment and a redirection of resources. It is, therefore, essential to know to what degree these investments in technology have not only had on student learning outcomes to date, but also on the sensibleness of the contributions of all stakeholders involved.

The truth is, however, that success is not a term that can be used to describe the results of attempts to integrate gadgets into the language classroom thus far. An article released in 2020 by McKinsey & Company outlined their general findings from a global study conducted to find out what connection exists between technology and student learning outcomes. It may be surprising to hear that when it comes to teaching reading, it turns out that personal tablets detracted from learning progress (Bryant et al., 2020). Data suggests that when tablets were used to aid in reading, students were set back by about half of a year. Likewise, the study also showed that laptops provided no significant improvement on learning outcomes when it came to reading.

One possible explanation for these sullen results may be that in order to benefit from the use of a technological device, one has to know how to use it first. It is the classic case of someone trying to write an essay on a laptop. If the writer has little experience in word processing and typing on a keyboard, it is likely that a good deal of energy will be spent on the mechanics of typing, while redirecting energy away from the content of the essay. It follows then that, time should be allocated on familiarizing students with the functions of personal devices like tablets and laptops, before the devices are used to achieve any specific learning goal. Going forward, school systems should also be responsible for developing programming that supports learners in gaining the necessary skills that will be needed in the high-tech classroom setting of our present and future.



The McKinsey & Company study also looked at how effective were teacher-manipulated technologies, and the results were mixed. Interestingly, data projectors increased learners' outcomes, whereas interactive whiteboards showed no significant impact (Bryant et al., 2020).

The aforementioned study was designed to show correlation, however, and not causality. In other words, there were no suggestions given for why, say, data projectors are more effective than interactive whiteboards in a classroom when learning outcomes are concerned. Causality, however, may be ascribed as to why teacher-driven technologies fared better than student-driven ones like tablets: When teachers control the technological devices, learner outcomes are better and that's likely because teachers are more proficient in manipulating the devices. It is likely that teachers, by sheer nature of the job and years of education, have been exposed to devices longer than some of our learners. This de facto technological training may be responsible for the comparative success of teaching with the aid of a data projector, versus, say, a student-driven tool like a laptop. Therefore, we can assume that the lack of success in learning by way of a device is not due entirely to the inherent deficiency of the laptop as a learning tool nor the inflexibility in adaptation of the learner using it, success simply comes down to teachers having higher proficiency and longer prior exposure to devices.

This point leads to a second principle: Technology must be used correctly in order for it to be effective (Bryant et al., 2020). As common sense as this is, this principle prevails in a variety of ways when it comes to the ESL classroom. Some decisions that teachers make regularly when it comes to using technology are: What software or applications should I use? Also, what is the optimal device to use for the task at hand? Teachers are put in a position to match the use of technology with the environment and context. Without targeted teacher training, intuition can only go so far when it comes to answering these questions.

Teachers should select the use of different devices to suit learners' needs, and the rationale for selection relies on a teacher's experience, knowledge, and intuition. School systems should recognize that teacher training is imperative if technology is to be used fruitfully. What is equally important and possibly overlooked, is the need to introduce and train learners, too, on how to use personal devices such as laptops or tablets in order for these devices to be beneficial.

There were further revelations from the McKinsey and Company study that should be mentioned here. ESL classrooms vary from conventional, mainstream classrooms due in part to whom we serve; that is, ESL learners typically come from overseas locales, and as a result, learners' knowledge and experience in using devices varies wildly. An astonishing find of the study, however, was when literacy and language arts students coming from outside of North America did not use technology at all in the classroom, they ended up with better learning outcomes than students who did use some technology (Bryant et al., 2020). In other



words, the average learner did not benefit from using devices in the classroom. In fact, optimal time on a device to improve literacy and language skills was determined by the study to be effectively zero minutes. As discussed already, proficiency with technology must precede the practical use of technology when using it to complete a task. And for most countries—where a good deal of ESL students hail from—technology is not always supported, and therefore, they may lack working proficiency.

So, what is the takeaway?

The ultimate question to address here is whether technology has a place in the ESL classroom. As we saw earlier, South Korea implemented the Engkey robot to solve a problem that arose from having a limited pool of available teachers. Solving problems is a good reason for using technology. Another way that technology can serve in the classroom is by enhancing the experience while securing better outcomes. Technology can address this goal, too. Despite the revealing results of the McKinsley and Company study in how devices do not always contribute to learners' improved performance, it is important to recognize that the results reflect the use of technology up to the present time, but do not necessarily reflect the future. A mirror study conducted in 10 years' time may yield favourable conclusions, that is, once devices have found an enduring effective use and place in ESL learning.

At this point, based on the mixed results that gadgets have in the classroom, it may seem logical to eschew technology in favour of traditional means of learning, by way of old-fashioned books, paper, and pencils. It is important to note here that although there will always be skeptical teachers who maintain membership in the paper-and-pencil club, these teachers are not entirely wrong in putting their faith in comparatively traditional means of recording. A study published in *Frontiers in Psychology* showed that handwriting contributes to better reading development, more efficient transfer of information from short-term to long-term memory, and stronger retention (Zwaagstra, 2021). This is because handwriting produces more brain activity than do typing or clicking a mouse, which ultimately helps to engage the brain in more ways. Typing on a keyboard does not seem to be as effective as handwriting when it comes to learning and holding things in one's memory. What is more, when it comes to note-taking, laptops left learners with a shallower understanding of material than if they had penned the notes by hand. A good rule of thumb: The use of devices should complement the existing media of learning, not *replace* them. The research does not support uprooting pen-and-paper work entirely in favour of mice and touchscreens. This is positive news for teachers that are fond of dictations and notetaking.

Another useful rule regardless of what kind of media is used to teach, is that we have to look at the process of teaching, rather than the aids, as a guide to using technology successfully. *What matters more than*



which technologies we use is whether the instructor has agency over the process. In other words, when it comes to developed educational systems such as the ones we have in Canada, de-centralized power and higher authority granted to teachers to decide which technologies to use and when to use them, appears to be a better practice to integrate devices into the classroom (Barber et al., 2010).

Another consideration is the urgency by which ESL learning providers should address the training of ESL learners with technologies. ESL learners are often at a disadvantage in their new country because they may lack the language skills necessary to compete in the job market. Learners may not have had exposure to up-to-date technologies in their home countries in large part to under-developed local infrastructures (Wi-Fi, etc.). Technological skills serve as a way to attempt to equalize opportunities for English language learners in their new lands when it comes to future employment and academic opportunities (Altavilla, 2020).

School systems should give equal priority to offering ESL instructors the necessary training and professional development available to gain experience in using technology specifically in the ESL classroom, as attempts to utilize gadgets in-class remain, until now, largely untested and unproven in terms of their effectiveness (Altavilla, 2020). Teachers need guidance when it comes to addressing which applications are useful for improving which skill, the appropriate level for different software applications, as well as which devices are helpful with different skills. It is likely that as technological proficiency improves at the teacher and student levels, developing applications and software are likely to become more sophisticated and focused when it comes to addressing the needs of ESL instruction. As technology continues its evolution in sophistication, we should see learner outcomes improve. It holds then, that, improved student outcomes in the future are dependent on the training and proficient use of technology in today's classrooms. School systems need to communicate to teachers the importance of teaching technological literacy in the classroom, as it not only impacts the student's learning success in the classroom but is also directly applicable to their future success in the job market.

An additional consideration, when it comes to deciding when and how technology should be used in the classroom, is when it comes to positioning it in our post-pandemic world. Recently, as one my children was completing their nightly online homework assignments, she stated she wished her teacher gave homework on paper. This similar sentiment was echoed when I surveyed my class at the beginning of the school year when I asked if they preferred online classes or in-person classes. The consensus was in-school instruction was the preferred means of delivery. Anecdotal as these examples are, they do hold some logic. Is it possible that some students are experiencing post-pandemic technological burnout? Is it advisable to take the foot off of the tech pedal for a while?



So where do we go from here? What are first steps that instructors can take to attempt to learn how to proficiently implement the use of devices in the ESL classroom? The Immigrant Services Society of BC (ISS of BC) had developed online resources to help address the challenges that newcomers may face when it comes to digital literacy (<https://digital-literacy.issbc.org/>). The site offers a needs assessment, as well as modules that teachers can work through with their students. These modules target keyboarding skills, like using the Shift key, basic computer skills like double-clicking on a mouse or dragging a folder, as well as Internet and email protocol and conventions. The teacher's section offers excellent resources graded by CLB level (up to CLB 6), including lesson plans and worksheets, all designed in-line with PBLA directives. A students' section offers simple, multimedia resources to address the same skills listed above.

As this discussion comes to a close, a macro observation should be included here: When it comes to achieving success in the classroom with or without gadgets, learner outcomes are directly tied to the quality of the instruction, and the quality of the instruction is only as good as the quality of the teacher's competency as an educator (Barber et al., 2007). Improvements in technology in the classroom cannot have a positive impact on learner outcomes if teachers do not possess first the skills needed to offer competent instruction. Nonetheless, I would wager that as technology continues to become more intuitive, as more research goes into how technology can be used effectively for language learning, and when both teacher and student training on devices catch up, we should see improved productivity and gains. Technology is a force that needs to be reckoned with as we navigate unknown waters, as it is here to stay. As professionals in our industry striving for a common goal, it is up to us to ensure that technology is a resource and force that is not left untapped.

References

- Altavilla, J. (2020). How technology affects instruction for English learners. *Phi Delta Kappan*, 102(1), 18–23. <https://doi.org/10.1177/0031721720956841>
- Barber, M., & Mourshed, M. (2007, September 1). *How the world's best-performing school systems come out on top*. McKinsey & Company. <https://www.mckinsey.com/industries/education/our-insights/how-the-worlds-best-performing-school-systems-come-out-on-top>



- Barber, M., Chijioke, C., & Mourshed, M. (2010, November 1). *How the world's most improved school systems keep getting better*. McKinsey & Company. <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/how-the-worlds-most-improved-school-systems-keep-getting-better>
- Bryant, J., Child, F., Dorn, E., & Hall, S. (2020, June 12). *New global data reveal education technology's impact on learning*. McKinsey & Company. <https://www.mckinsey.com/industries/education/our-insights/new-global-data-reveal-education-technologys-impact-on-learning>
- Jung, H. (2010, December 28). *S. Korea schools get robot English teachers*. Phys.org. <https://phys.org/news/2010-12-skorea-schools-robot-english-teachers.html>
- Mukherjee, S. (2020, November 9). *How Zara became the undisputed king of fast fashion? The Strategy Story*. <https://thestrategy.com/2020/11/09/zara-fast-fashion-case-study/>
- Qureshi, Z. (2020, February 25). *Technology and the future of growth: Challenges of change*. Brookings. <https://www.brookings.edu/blog/up-front/2020/02/25/technology-and-the-future-of-growth-challenges-of-change/>
- Zwaagstra, M. (2021, November 16). The evidence is clear: Handwriting still matters. *The Hamilton Spectator*, p. A14.

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