# Church Teachers' College; Mandeville

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# Educational Trends and How They Impact Teaching/Learning Content

In addition to increased use in technology in the educational system, there are educational trends in advanced technology that are now impacting the teaching/learning content. These include Artificial Intelligence (AI) Virtual Reality (VR) and Gamification. As the wider society embrace advancing technology, schools and educators have endeavored to integrate technology-enhanced learning (TEL) into their systems in order to get in step to keep current. Embracing the latest technology is seen as giving students a competitive edge in the wider world which is already using these innovations, and helping teachers to embrace new methods of teaching which promise to increase student engagement and allow students to experience real world situations from their classrooms thereby better preparing them to function intelligently in the wider society. Another advantage of this type of technology is that it provides instant feedback so students' progress can be more easily monitored.

Artificial intelligence which has been around since the 1950s, is sometimes referred to as machine intelligence (they are actually not the same) and it allows machines to 'learn from experience' adjusting to new inputs and thereby perform human-like tasks. In an article entitled "How Artificial Intelligence is Being Used in the Classroom", Joshua Robinson points out that there are those who fear that AI could "spiral out of control" resulting in disaster, while others see it in a more positive light as; allowing more teaching time, save teacher time with grading, help with problem solving, providing virtual field trips, and increasing student engagement. (Joshua Robinson). Bernard Marr, writing on the issue of AI in schools does not see a conflict but rather, embraceable changes to the teacher's role "… though most experts believe the critical presence of teachers is irreplaceable, there will be many changes to a teacher's job and to educational best practices." (Marr,2018). He further states that AI would allow a level of

differentiation that would be impossible for a teacher with a large class to accommodate. Also, that AI makes the global classroom possible, and frees the teacher the time spent grading and give recommendations concerning closing learning gaps. (Marr, 2018).

Virtual reality can be described as a way to create a computer-generated virtual world. It works by stimulating the vision through headsets designed to create a realistic artificial world including sounds and sensory effects. VR is already being used in the educational field. In an article on the topic, dated October 2017, Marianne Stenger listed ten areas where VR was being used in education. These included virtual field trips, language immersion, skills training, philosophical theories, architecture and design, special education, distance learning, improved collaboration, game-based learning, and virtual campus visits. She mentioned also that despite the benefits, embracing it has been slow due to the financial expense involved. (Stenger, 2017).

"Gamification describes the process of applying game-related principles — particularly those relating to user experience and engagement — to non-game contexts such as education." (David,2016). It is different from "game -based learning in that it does not involve students making their own games or playing commercially-made video games." (ibid). According to David, gamification has been criticized as a "tool for implementing carrot-and-stick behaviorism". Further, others feel that games breed competition and lessons will be more about the game than about the subject matter. The feeling is that students should be motivated by the desire to learn and not by something external such as gaming. The benefits, however, may far outweigh the criticisms.

Students like playing games so applying game principles to their lessons would likely result in more positive responses and greater engagement. They already understand the principles

and rules in gaming and enjoy playing them so there is no need to teach or convince them to participate. David looks at a list of benefits of gamifying education which include:

- "Students feel ownership over their learning
- More relaxed atmosphere in regard to failure, since learners can simply try again
- More fun in the classroom
- Learning becomes visible through progress indicator
- Students may uncover intrinsic motivation for learning
- Students can explore different identities through different avatars/characters
- Students often are more comfortable in gaming environments". (ibid).

An article in TeachTaught, sees more positives in gamification as challenges or activities with more than one way to be solved, students tracking their progress in a fun/visual way, the element of role play. Games promote situated learning, help students explore higher order thinking skills associated with creating, evaluating, analyzing, and applying new knowledge. (TeachThought, 2019).

"Gamification makes use of gaming mechanics, such as badges, points, levels, or leaderboards and applies these mechanics to the way a learning course is taught. This, in turn, improves the learner's motivation…gamification in education is also sometimes termed as game principles for education, gameful thinking, engagement design, or motivational design etc." (Raccoon Gang, 2018).

This same article listed a number of elements which are crucial problem solving designed to meet the students' learning needs. These include:

- Mystery – this element requires the learners to fill the gap of known with unknown.

- Action –The action that forces the learner to make a move and is used to engage the learners immediately.
- Challenge – Every human feel pleasure in overcoming challenges
- Uncertainty – in this element, learners hold no idea about what may come next in their way.
- Progress Visibility – such game designs clearly tell learners what must be done, where to start and how long it must go on.
- Emotional Content –These game elements help in encouraging and embracing different human emotions. (ibid).

Gamification is appealing to learners and imbedded with the skills learners need. Gamifying a class produces more willing learners providing motivation and giving the teacher more latitude to observe and assist. Besides, while making education more efficient, it makes learning fun and we have always been saying learning should be fun.

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