Reflections on the Pandemic, Online Learning, and the Outcomes of Faith-based Education

Francisco D. Gayoba
Adventist University of the Philippines, Philippines

Plenary

INTRODUCTION

The first word in the title of my presentation is "pandemic." The experience of the Adventist University of the Philippines during this time of pandemic may be similar to yours. If ever there's a word or two that could characterize our University's entry to online learning, it would be "emergency" or perhaps "sudden abrupt change" from in-person learning to online learning. The change began early in the year 2020. January 12 was the day when the nearby Taal Volcano erupted. For one month, the campus was covered in very thick ashfall. As a result, we were unable to have any classes at all on campus. Thus, when classes resumed in February, we had already gradually begun several online courses because some of the students had already gone home. Then, a month later, on March 15, 2020, the government of the Philippines imposed a nationwide quarantine. All schools at all levels were physically closed, and since then, were only allowed to open if courses were offered online.

It was early this month after more than a year and a half of fully online learning did, we start blended learning. Our dentistry program has held remote laboratory classes, with the students working individually in the laboratories while their teachers supervise their work online. Our nursing program started limited in-person classes last week for their skills laboratories, and the medical laboratory science program started the training of their students for internships in the hospitals. So far, these are the courses we have in the blended learning mode; the rest are still fully online.

It has been a very challenging year for teachers and students alike, and even for the rest of our employees and staff, especially our finance and operations people who have handled the retrofitting and preparation. Because we are a residential school, the government required a crisis management committee to manage the movement and health of students who remained on-campus. It has been a very stressful and challenging year indeed, even for administrators.

Such rapid curriculum adjustments and changes in the delivery of courses were humorously described in a cartoon in LeRoy Ford in his book *A Curriculum Design Manual for Theological Education.* The cartoon illustration shows a truck going downhill on a narrow cliffside road, with two persons trying to change a flat tire without stopping the vehicle (Ford, 2003, p. 45). This analogy aptly describes the difficulty in trying to adapt to academic changes that occur at a rapid pace during a crisis.

It may be that online courses will stay even if the pandemic is over. Early this year, the Philippine newspapers carried the pronouncement given by the chairperson of the Commission on Higher Education, stating that "flexible learning [is] to stay even after pandemic" (Mateo, 2021).

The explanation given was that “going back to the traditional face-to-face classes would waste the 'investments in technology, teachers' training, and retrofitting' of facilities” (Mateo, 2021). The government is promoting that flexible learning should remain even after the pandemic. This direction seems to be not only in the Philippines but worldwide (World Economic Forum, 2020). Such a possible direction made me reflect and ask questions on whether the long-term use of online learning would affect fulfilling the mission of a faith-based institution such as what I am currently leading.

The first question is, is online education educationally equivalent to in-person education, so much so that we will continue it even beyond the pandemic? Second, can online learning be the dominant pedagogy for faith-based educational institutions to give a holistic understanding of education, i.e., that education is more than merely about sharing knowledge and transfer of technology?

For Seventh-day Adventists, the outcome of education is for students to experience redemption and salvation, with the corollary outcome of service to others. Can we meet this mission in a fully online mode of education? For Catholic schools, the emphasis is on the learning of virtues and holiness in life. Can schools meet the outcomes of Catholic education in a purely online mode? In the Islamic tradition, the emphasis is on moral and spiritual conscious consciousness that leads to faith and righteous action. Can schools meet the outcomes as Islamic institutions with a purely online mode of delivery?

For those belonging to Evangelical Protestant groups, the purpose of faith-based Christian education has been described this way: “Christian educators have not achieved their mission if their students are simply smarter. Instead, educators aim for whole-person transformation as students engage in a Christian worldview that integrates faith and learning, applies truth to their lives in meaningful ways, and fosters their growth toward Christlikeness as they interact in the educational community” (Ferguson, 2020, p. 115). So, again, my question is, can we fulfill such an outcome primarily through online or distance education?

This presentation is my reflection on this matter. The thesis of my presentation is this: The mission of faith-based educational institutions cannot be realized by a fully online or distance mode of learning. Blended or flexible learning may mitigate the situation during the pandemic, but higher education institutions must retain their physically present and communal model of education. To support this thesis, we will suggest in this short presentation two considerations: (1) the educational theory that many faith-based institutions base their curriculum on and (2) the insights from neuroscience that inform us in fulfilling our mission.

Online Learning Cannot Fully Provide A Community Experience Needed to Develop Faith

The educational theory that is closest to the biblical perspective on education is social learning. We can say that Lev Vygotsky’s social constructivism may be the best model for educators in faith-based schools (Deulen, 2013). Research about intelligence supports the value of social constructivism (Deulen, 2013). Social constructivism is also consistent with the biblical approach to learning, such that “learning takes place in the context of community. The nature of that community or ecosystem must then contain the elements that foster learning (trust, mentoring, and one-anothering). Therefore, a strict online learning environment may never truly conducive to learning under a social constructivist perspective.” (Deulen, 2013, p. 95).

There are many ways to compensate, even in a limited way, for the weaknesses of online learning from the perspective of social constructivist theory. Some methods suggested by Angela Deulen are synchronous virtual classrooms, breakout rooms for student projects, virtual offices, students teaching other students, etc. (Deulen, 2013, pp. 95–95). In addition, Kristen Ferguson suggests that an hour and a half class period be broken down into 20-minute segments to alternate lectures with activities to lessen "video fatigue" (Ferguson, 2020, pp. 107–107). Ferguson also suggests student engagement be made a large portion of the final grade. Students can participate in answering questions through class discussions, forums, and asynchronous chat rooms.

Beyond student engagement is the discipleship or spiritual formation goal of Christian education. How such a goal can be facilitated is a challenge in an online platform that is characterized by physical separation, even if long hours are spent in video lectures. Ferguson (2020) writes that

> "the physical distance between professor and student may result in stymied opportunities for spiritual growth that come as a result of interaction with biblical content through meaningful relationships with the student's professor and peers. In other words, the physical distance can reduce meaningful interactions, which in turn can reduce growth and transformation." (p. 116)

To counteract the effects of physical distance, a "community of inquiry" can be cultivated online (Garrison et al., 2000, p. 87). Three necessary relationships need to be established to promote spiritual transformation: "The student and the content of the course, the student and the professor, and the student with other students" (Ferguson, 2020, p. 115.) Engagement of the student with the biblical content of the course must include "reflection and application, bringing the Scriptures to bear on the student's real-life and context" (Ferguson, 2020, p. 116.) The professor must build a mentoring relationship with the students so that they can have a model of a Christlike teacher. Through "asynchronous discussion, peer review, group work. . . and other creative activities. . . students can observe growth in one another, participate in application beyond their lives and articulate important ways in which they are being transformed" (Ferguson, 2020, p. 116). Ferguson also adds another component: students must be mobilized to share the Great Commission in their own context (Ferguson, 2020, pp. 116–117). Thus, lengthy online sessions are not aligned with the psychological principles of how humans learn. To mitigate the deficiencies of online learning, we need to augment and strengthen the different modes or strategies of internet-based pedagogies towards a more social constructivist approach so that it can be consistent with our mission as faith-based educational institutions.

Prolonged Online Learning Effects on the Brain Causes That Undermine Faith Maturity

The second reason why faith-based education aimed to build character cannot be completely screen-based learning is that its effects on the brain undermine or counteract the purpose of teaching faith. We are still in the early stages of understanding the impact of digital-based learning on the brain, but several studies in neuroscience are already pointing to several effects that we who are concerned with the outcomes of online learning on the lives of the students have to be sensitive and respond to. Though there are many benefits to online learning, the following detrimental effects have been pointed out.

First, even early as 1999, J. M. Healy has already argued that different media produce different brains (Healy, 1999). A recent study summarizes evidence that the internet "produces both acute and sustained alterations in . . .cognition, which may be reflected in changes in the brain" (Firth,

J., Torous, J., Stubbs, B., Firth, J., Steiner, G., Smith, L., Alvarez-Jimenez, M., Gleeson, J., Vacancamfort, D., Armitage, A., & Sarris, J., 2019, p. 119). To be more specific, screen-based learning changes the circuitry of the brain resulting in "continuous partial attention," and with such, the result is a "shallowing" of their understanding. Physiologically, because of prolonged screen time, students do not have time to think. What develops is a brain that has a weakened capacity for abstract and creative thinking (Firth, J., Torous, J., Stubbs, B., Firth, J., Steiner, G., Smith, L., Alvarez-Jimenez, M., Gleeson, J., Vacancamfort, D., Armitage, A., & Sarris, J., 2019, pp. 121–122). The visual side of the brain is used but doesn't connect to the side of the brain that functions on logic, reasoning, and creative thinking. Also affected by prolonged screen use is the grey matter within the orbitofrontal cortex where impulse control and decision-making is processed, is little used in online learning (Firth, J., Torous, J., Stubbs, B., Firth, J., Steiner, G., Smith, L., Alvarez-Jimenez, M., Gleeson, J., Vacancamfort, D., Armitage, A., & Sarris, J., 2019, p. 119). Similarly, the lack of eye contact, which is important in communication, lessens a person's capacity for empathy (Victorin, 2021). "The consequences of these losses cascade from decreasing empathy and critical analysis to susceptibility to fake news, demagoguery and their impact on a democratic society" (Wolf, 2020). This is why students are easily carried by what they see online because they are absorbed by what they see, but there is no opportunity to pause to think and reflect whether or not it is true.

Second, a review of 16 studies published last year concluded that the more time adolescents spend on the internet, the more mental health problems are experienced (Karim F, Oyewande A, Abdalla L, 2020). Third, a similar review of studies published almost at the same time explored the impact of the pandemic on children and adolescents. The review of the authors on studies on the plasticity of the brain as it relates to social behavior notes that "even when virtual relationships are established, they cannot cater to physical needs which are essential to the improvement of interpersonal connections that contribute to the global development of the individual." (Figueiredo, C., Sandre, P., Portugal, L., et al., 2021, p. 3).

Fourth, Susan Branje and Amanda Morris authored a special issue that reviewed 21 empirical articles from four continents, many of which are longitudinal studies. The review mentioned a reported "decrease in academic well-being, characterized by lower school engagement and higher burnout" (Branje, S., Morris, A., n.d., p. 495). Taking courses purely online instead of in-person reduces student success and progress in college (Cellini, 2021). In addition to academic success, students indicate "decreases in intrapersonal socioemotional competencies, combined with increased loneliness and decreased belongingness" (Branje, S., Morris, A., n.d., p. 496). The same reviewers caught my attention when they mentioned that "adolescents from more disadvantaged and lower-income environments particularly experienced a negative impact of the pandemic—they experienced the loss of family income, higher rates of illness and death among community members, and problems in virtual connectivity. The levels of stress and trauma in those adolescents are likely to be higher, and this has been consistently linked to adverse development, academic achievement, health outcomes, and risk for exposure to violence" (Branje, S., Morris, A., n.d., p. 494). This is of interest to me because many of our students in our school come from that class—which we call work scholars—and they are the ones with the greatest difficulty. They have a higher level of stress and trauma because of the adverse experiences they're going through in online learning in the time of the pandemic.

In-Person Relationships and Learning in a Physical Community are Still Essential to Meeting the Outcomes of Faith-Based Schools

Such are the effects of sustained use of the internet in learning that the International Commission on the Futures of Education of UNESCO released last year a document calling for maintaining a physical school rather than just virtual learning. They are saying that even if the pandemic ceases, we should not forget that physical schools are still important.

> "The Commission calls on all educational stakeholders to protect and transform the school as a separate space-time, specific and different from home and other spaces of learning, where there is as much growth and expansion of social understanding as there is the acquisition of skills, competencies, and knowledge."(International Commission on the Futures of Education, 2020, p. 15).

The Commission argues that a physical school is "indispensable" in education. "Traditional classroom organization must give way to a variety of ways of 'doing school,' but the school as a separate space-time of collective living, specific and different from other spaces of learning must be preserved." (International Commission on the Futures of Education, 2020, p. 15). The main reason is that the

> "space of the school houses social relationships. Education and learning are about human interactions, dialogue, and exchange. . .Schools are forms of collective living that cannot be replaced by distance or remote learning" (International Commission on the Futures of Education, 2020, p. 4).

To summarize, in-person learning is crucial in fulfilling the mission of faith-based education. In-person learning gives students a distinctive way of being, a way of knowing, and a way of responding to life's most difficult problems. Online learning has a lot of benefits, but a purely online learning is not complete in its outcomes. I am not proposing that we drop all online learning from our schools. What I am trying to explore is the impact of online learning on our students and what it will mean in the long term in relation to fulfilling our mission as a faith-based school.

Many years ago, the poet T. S. Elliot posed a question that I think still applies today. Where education is seen by many governments as primarily technocratic, as a way of transferring skills and technology so that the citizens of the country can compete worldwide in industrialization, T. S. Elliot asks, "Where is the knowledge in our information? Where is the wisdom in our knowledge?" Our students receive a lot of information, but do they gain knowledge? And if they gain knowledge, do they gain wisdom? Having been made aware of the challenges, can we devise innovative ways that will align our pedagogies with social constructivism? Can we mitigate the effects of online learning on the brains of our students by more beneficial teaching strategies?

I am not sure how long the pandemic will last. Maybe most of our member universities in this association will revert to flexible learning if not a fully in-person delivery of our educational services. But, even if COVID-19 may be already controlled in your localities, there is still a possibility that school lockdowns may be imposed again. There is the threat of the Delta-Plus variant. I hope this short presentation not only presents us with the challenge but also opens our eyes to the need to innovatively devise ways so that we can fulfill our mission as faith-based schools. Even with our limited opportunities during the pandemic, I hope that we can still fulfill our mission.

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