

Preparing Students for Post-COVID-19: Looking at the Bright Side

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ABSTRACT

As this paper is written in September 2020, the zoonotic-induced COVID-19 pandemic continues to cause major problems around the world, including in Education. The purpose of this paper is to suggest ways that students can prepare to turn the challenges caused by COVID-19 into positive changes for themselves, their teachers, and all the rest of the Earth's inhabitants. After explaining and exemplifying the concept of pushed change, the paper delves into three pushed changes connected with COVID-19 and how these pushes can lead to changes which produce a brighter future for Education and all its stakeholders. These three pushed changes for the better are: (1) the rise and spread of online learning; (2) actions to address climate weirding; and the use of cooperative learning to promote social cohesion.

Keywords: *Pushed change*

1. INTRODUCTION

Many observers complain that change in Education is slow or even sometimes non-existent. For example, teacher centered instruction has been the norm for decades, with teachers standing in the front of their classes, talking most of the time, while their students each sit alone, only talking when called on by their teacher. This lack of change in Education persists despite the fact that the consensus among experts in the field asserts that student engagement and learning increases in more student centered environments in which students are much more active and have more responsibility [1]. Sometimes, changes in the wider society can spark changes in Education. No doubt, the COVID-19 pandemic is generating changes in many aspects of human society, e.g., worsening poverty [2]. The purpose of this paper is to promote the hope that despite this pandemic's many horrible effects, it can also have positive impacts in the specific case of Education.

1.1. Related Works

1.1.1. Pushed Changes in My Own Life

The paper begins by discussing the concept of pushed change and then discussing three possible positive pushed changes in Education that could take

place in the wake of COVID-19. "Pushed change" is a term I learned in June 2020 from my long-time colleague, Dr Stephen Hall of Sunway University in Kuala Lumpur, Malaysia. In case the term is also new to you, here is my understanding of what it means. Pushed changes are changes that maybe I want to make or maybe I do not want to make, but I am forced by circumstance to make these changes. Maybe I am happy that I had to make the changes; maybe I am unhappy. Maybe I had previously wanted to make the changes, but something was missing, e.g., I did not have the willpower.

The following are two examples of pushed changes in my own life. One, I resisted doing online banking for many years, but more and more people and businesses were asking me for electronic payment, partly for faster payment and partly to avoid physical contact during the pandemic; so, I was pushed to learn and use online banking. Fortunately, more and more people among my family and friends were doing online banking, and some offered me help. Thus, I was able to change and learn online banking. However, new online banking options continue to appear, and I am being pushed to learn those, too.

A second example of pushed change in my own life is that I used to enjoy jogging as exercise, but then my knees started to hurt. Therefore, I had to switch to

walking. That was another pushed change. Now, as I age, approaching 70 years of age, my walking distance is getting shorter and my speed slower: yet another pushed change. However, I still walk, as I still enjoy exercising. Fortunately, the pushed change is working out fairly well. People, such as my wife, who do not enjoy running, offered to walk with me. Additionally, step counters, heart rate monitors, YouTube music, and podcasts about topics of interest make walking more interesting, and I learned from others, such as my brother, how to use those. New technology, such as blood oxygen monitors and antioxidant scanners, continue to emerge. Therefore, as I continue to walk, I am continually pushed to learn new ways to make my walking interesting.

Here are three commonalities among the above two examples of pushed change in my life. First, I did not want to make either change. For example, I loved running; it gave me a great feeling of freedom. I did not want to stop running; I had to. Second, other people helped me make the changes, e.g., my family guided me to learn online banking, and they are still teaching me when new forms of online banking become available. Third, changes continue to occur in both banking and exercise, not to mention other areas of life. What about you, the esteemed readers of this paper? What pushed changes have happened and are happening in your valuable and meritorious lives? Do these changes share the same three commonalities of my pushed changes?

Vocabulary is an area that is alive with change. Fortunately, I have many younger family members from whom I can learn new terms from modern culture, such as “legit.” Also, the fields I work in, such as language education, have many new terms. Language educators may already know such terms as TEFL, TESOL, NESTs and Non-NESTs, TENOR, LSP. In June of 2020, on the Teachers Voices FB group (helmed by another long-time colleague, Dr Willy Renandya of Nanyang Technological University in Singapore) [3], I saw a call for papers for a journal in Argentina talking about a special issue of that journal on a language education term I had never seen before: T-LUC (Teaching Languages in Unprecedented Circumstances). T-LUC is fun to say, and it is an acronym that truly fits our times.

1.1.2. Positive Pushed Changes in Education

Three pushed changes of our COVID-19 induced unprecedented circumstances form the focus of this paper. These changes are: (1) The rise of online learning, (2) The increased need to address climate

weirding, (3) The increased need to address threats to social cohesion.

1.1.2.1 The Rise of Online Learning

The rise of online learning provides a great example of pushed change. While some observers view this pushed change to online learning induced by COVID-19 as largely a disaster [4], for many years, educators have recognized that online learning has many possible advantages [5]:

- (1) Lower costs, e.g., fewer school buildings are needed, even though there may be many more students, especially in tertiary and adult education.
- (2) Lower greenhouse gas emissions, as people stop commuting to school [6].
- (3) Greater access to education for more people, e.g., the motto of the Open University of Indonesia is “Making Higher Education Open to All.” Indeed, online learning can also open windows for younger learners as well as for seniors and other who may not be seeking university degrees [7] [8].
- (4) Enhanced lifelong learning, as online learning makes learning more convenient and less time consuming [9]
- (5) Greater choice and flexibility for students, as they can choose online courses from all over the world, rather than being limited to those courses on offer at an education institution near them, and they can study at any time, rather than being limited to a course’s one scheduled time.
- (6) More learning of ICT tools, as technology offers so much new and improved software and hardware, and as prices for these sometimes fall [10].
- (7) More and stronger learning communities, as, aided by improving translation software, students can link with peers anywhere both synchronously and asynchronously [11].

1.1.2.2. The Increased Need to Address “Climate Weirding”

Most of the public are familiar with the terms “climate change” and “global warming” to represent the mostly negative changes that are occurring due to the

increased amount of greenhouse gases humans are putting into the Earth's atmosphere. A third vocabulary term I learned, after "pushed change" and "T-LUC," is "climate weirding." The prominent author and newspaper columnist, Thomas Friedman [12] suggested this term because the changes humans are provoking in our planet's environment are complex and unpredictable, rather than only involving warmer temperatures:

"The frequency, intensity, and cost of extreme weather events are all increasing. The wets get wetter, the hots get hotter, the dry periods get drier, the snows get heavier, the hurricanes get stronger." Also, sea levels rise, droughts and floods worsen, and humans and other animals mostly suffer, rather than benefiting, as a result of climate weirding.

Humans' impact on the planet's sentient inhabitants (humans and our fellow animals) is captured in yet another term, one I learned a few years ago: "anthropocene" [13], i.e., the geologic age into which the Earth entered perhaps in the latter part of the 20th century. In this geologic age, humans (anthro) are the main factor affecting the climate. As the title of a 2019 non-fiction book by novelist Jonathan Safran Foer [14] put it, "We Are The Weather".

As discussed earlier in this paper, the pandemic has pushed us to change education to include more online learning. What changes are we being pushed to make due to climate weirding? The following are among the actions environmentalists urge us to take, depending on our context:

- (1) Drive and fly less, as driving cars and other motor vehicles, and flying uses fossil fuels and emits large quantities of greenhouse gases into the atmosphere.
- (2) Eat less animal-based foods, such as meat, milk, and eggs, as production of these foods increases greenhouse gas levels [15].
- (3) Reduce paper use to save trees.
- (4) Reduce single use plastic to reduce pollution and depletion of natural resources.

What should we in our roles both as teachers and as private citizens, and what should our schools/universities do to reduce climate weirding? Am I, my colleagues, and students taking the four actions listed above? Can these and other actions be part of our curriculum, i.e., can students speak, listen, read, and write about these environmentally-friendly actions and can they take part in them?

1.1.2.3 The Increase Need to Address Threats to Social Cohesion

Social cohesion promotes a happier, more effective society. More than the other two issues discussed so far, the dimensions of social cohesion will differ from country to country, as well as within the same country. Some of the fault lines threatening social cohesion in various countries and localities include, in no particular order: nationality, sexual preference, age group, religion, race, socio-economic status, education level, sex, challenged/able [16].

Unfortunately, a look at the news reveals social cohesion to be under serious threat in many places, e.g., discrimination against females, racial tensions, moves to expel immigrants, and unequal access to quality education and health care. Sometimes, crises, such as pandemics, can bring people together, but crises may also increase social divisions.

The following quote from Rabindranath Tagore, the 1913 winner of the Nobel Prize for Literature, captures how diversity, rather than threatening social cohesion, can contribute to vibrant, cohesive societies:

"... let us unite, not in spite of our differences, but through them. For differences can never be wiped away, and life would be so much the poorer without them. Let all human races keep their own personalities, and yet come together, not in a uniformity that is dead, but in a unity that is living."

What about social cohesion in one of the classrooms in which you teach? What are some differences among students in that classroom? Do those differences help/hinder cohesion among the students in or out of class? What can you and other teachers do to promote cohesion?

Cooperative learning is a well-established approach to teaching that has been shown not only to promote learning, but also to enhance ties between students of different backgrounds [17] [18] [19]. Two key principles underlie cooperative learning. One, positive interdependence is the principle that represents a feeling among group members that they need to help each other in order to succeed themselves, i.e., that they "sink or swim together." Two, while positive interdependence provides support to group members, the second key principle, individual accountability, puts pressure on each group member to do their fair share in the group.

Here is an example of cooperative learning in action.

- (1) Students are in groups of three members. Each member has read a different book as part of their class' extensive reading program. They each have also drawn a bookmark that illustrates an important person, place, event, idea, etc. in the book they read. Classmates can assist each other in comprehending their books and making the bookmarks.
- (2) Each group member takes a five-minute turn to show their bookmark and tell about their book. The final minute of the five minutes is for questions/comments from groupmates. If the person who has the turn finishes their telling in less than four minutes, the others ask more questions. Before this activity, the teacher has explained and demonstrated how to do the bookmark, the book sharing, and the questioning/commenting.
- (3) After each group member has taken their turn, one member is chosen at random based on their number in the group, which is based on where they are seated in the group (e.g., the student at the far left is #1). The student whose number is chosen moves to another group to share their two groupmates' book information with the other group; they do not share their own information, only their groupmates'. Thus, students need to successfully exchange information with their partners. They cannot succeed alone.

To analyze the above activity in light of the cooperative learning principles of positive interdependence and individual accountability:

- (1) The activity promotes positive interdependence because, for instance, students need their partners to question/comment after they have done the book sharing, and they need their partners to share so they will have something to talk about if they are chosen to go to another group.
- (2) The activity promotes individual accountability because, for instance, students are responsible for reading a book, preparing to share about that book, making a bookmark, and possibly sharing about their partners' books with another group.

The hope, and research suggests this hope may be justified (e.g., [20]) is that when students feel positively interdependent with each other, when they are all

individually accountably to contribute to their group's shared goals, they are more likely to be able to coexist/cohere in and out of class. The literature on cooperative learning encompasses a wide array of theoretical, research, and practical work from many different subject areas, ages of students, and geographic locations. At the same time, this literature is a living body of knowledge, and new ideas are needed from teachers, students, and other stakeholders.

Johnson, Johnson, and Holubec [18] described various generic ways that teachers and students can facilitate the feeling of positive interdependence. These include:

- (1) Goal – the group has a common goal. One tricky point is that goals represent the learning of each and every group member, e.g., if the group is doing a project together, and their project is fabulous, the group has not reached its goal unless everyone in the group becomes more skilled, more knowledgeable.
- (2) Information resources – each student has information that their partners do not have, and they need to share that information for the group to reach its goals. The above example of students sharing about a book they had read is an instance of information resources positive interdependence.
- (3) Equipment resources – each student has/uses unique equipment. A simple example is if each student has a different color pen and the group needs to create a mindmap with a relatively equal distribution of all those colors.
- (4) Roles – each student has a different role, and all need to complete their roles for the group to succeed. Roles should rotate, so that everyone learns all the roles, even those at which, at first, they lack skill and comfort. Just a few of the many possible roles are facilitator, recorder, encourager (who encourages everyone to participate), asker for reasons, and language captain (who encourages the group to use the target language when appropriate).
- (5) Celebration/Reward – When the group achieves a goal, they celebrate, e.g., do a group cheer, handshake, or dance. Goals represent everyone in the group learning, each according to their individual context. An example of a reward can be all group members receiving bonus points if

everyone in the group reaches an individually-determined goal for their score on a quiz.

- (6) Identity - the group feels as though they have a common identity. Sport teams, clubs, bands, dance troupes, and many other kinds of groups attempt to build a shared identity among members using techniques such as group names, songs, flags, colours, cheers, and special handshakes.

2. RESULT AND DISCUSSION

2.1. Overlapping Ideas for a Brighter Future in Harmony with Pushed Changes

The pushed changes we face, especially in this time of pandemic, can be scary. To recap, the three pushed changes considered in this paper are: (1) The rise of online learning (2) The increased need to address climate weirding (3) The increased need to address threats to social cohesion.

Fortunately, every crisis, just like every pushed change, represents not just dangers but also opportunities. This section of the paper proposes overlapping ideas that can propel education and society generally toward a brighter future.

2.1.1. Combine Online Learning with Cooperative Learning

Students, teachers, and families face many challenges in implementing online learning. These challenges include lack of hardware, lack of bandwidth, lack of ICT skills, and lack of motivation and discipline to study alone. Cooperative learning cannot help with hardware or bandwidth, but it can help with ICT skills, because group mates can mentor each other. In addition to positive interdependence and individual accountability, another cooperative learning principle is heterogeneous grouping, i.e., to the extent possible, each group should reflect the diversity found among the members of the class. In the case of ICT skills, students with relatively good ICT skills should be evenly distributed among the groups so as to be able to assist group mates.

Motivation and discipline is the area where cooperative learning can perhaps have the largest positive impact on online learning. Remember, please, identity positive interdependence. When doing online learning, students may be physically alone studying from home, but with cooperative learning, students are psychologically part of a group, a group of peers who

need them to learn (individual accountability) and who are there to help them learn (positive interdependence). For instance, group members can check on each other to see if they are understanding, because individual students have not completed their work just because they personally understand; students' job is not finished until all their groupmates also understand.

2.1.2. Combine Online Learning with Addressing Climate Weirding

Part of success in online and, indeed, any mode of learning, depends on student engagement [21]. Engagement can be defined as "students' willingness, need, desire, and compulsion to participate in, and be successful in, the learning process [22]. Three ways to increase engagement involve using topics connected to students' lives, allowing students to have some choice in what and how they study, and encouraging students to develop practical applications for what they have learned.

Climate weirding may offer one theme that includes all three ways of enhancing student engagement. First, climate weirding is a topic that connects closely to students' lives, as climate changes impact everyone's life, although in different ways, e.g., flooding impacts people in many parts of Indonesia, whereas drought hits other parts of the country. Second, many strategies can be used to address climate weirding, e.g., waste reduction, diet change, communication with governments and organizations, and alternative energy. Students can choose to focus on one or two of these strategies. Third, while climate weirding can be taught in a teacher-centered mode, in which students learn in order to repeat what they have been taught on an exam or in a paper, the practical applications of ways to address climate weirding empowers students to see how important their learning can be. Indeed, the United Nations urges that environmental education include not just raising student awareness but also energizing their participation [23].

2.1.3. Combine Addressing Climate Weirding with Building Social Cohesion

Many textbooks for language learning contain units and activities about food [24], as food is a topic involved in everyone's life on a daily basis. Fortunately, food fits well with both climate weirding and social cohesion. The link between food and climate started to receive international attention in 2006 when the United

Nation's Food and Agricultural Organization published *Livestock's Long Shadow*. The report explained how humans' use of other animals for food (animal agriculture) is a major contributor to the increase in greenhouse gases in the Earth's atmosphere in the anthropocene.

Animal agriculture raises greenhouse gas levels in two main ways. One, animal agriculture is a very inefficient way to produce food [25], as many kgs of plants have to be fed to animals, such as cows and chickens, to produce just one kg of animal-based food. As a result, large amounts of rainforest are destroyed to grow these unnecessary plants. Two, the animals' digestive processes result in release of large quantities of such greenhouse gases as methane and nitrous oxide [26].

Thus, as explained above, food plays a key role in climate weirding. Food can also play a role in promoting social cohesion [27]. Another reason for the cooperative learning principle of heterogeneous grouping, explained earlier, lies in the value of the different perspectives that students with diverse backgrounds can bring to their groups, e.g., different customs and beliefs about food. Linguacuisine - <https://linguacuisine.com/> - is a European Union project designed to blend language learning with the learning of cuisine, culture, and technology [28]. As part of Linguacuisine, students create and share videos about specific dishes. The videos not only teach food preparation but also language and culture. In this way, students can use online learning to share their knowledge of the link between food and climate weirding, while they build social cohesion by teaching others about plant-based dishes from a variety of cultures.

3. CONCLUSION

This paper began by discussing the concept of pushed change, particularly in this difficult time of the COVID-19 pandemic. To review, (1) the pushed change to online learning has caused many difficulties, especially for students from lower socio-economic levels. (2) While in some ways, the pandemic has caused a temporary slowing of climate weirding, the pandemic has diverted attention from the urgent need for long-term changes to alter the course of the anthropocene. (3) Last, but not least, the hardships caused by the pandemic can put stress on social cohesion.

Fortunately, as explained early in this paper, pushed changes can have positive impacts. The purpose of this paper has been to contribute some unoriginal, overlapping ideas for how we educators, our students, and other education stakeholders can use the disruption caused by the current pandemic to forge a brighter common future. Let us hope that we can continue to share ideas and that we can also work together to put those ideas into practice.

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