

Students and Teachers as Changemakers

GEORGE M. JACOBS

Universiti Malaya, Kuala Lumpur, Malaysia

MENG HUAT CHAU*

Universiti Malaya, Kuala Lumpur, Malaysia

NURUL HUDA HAMZAH

Universiti Malaya, Kuala Lumpur, Malaysia

*Corresponding author email: chaumenghuat@yahoo.co.uk

Article information	Abstract
<p>Article history: Received: 10 Nov 2021 Accepted: 16 Apr 2022 Available online: 21 Apr 2022</p> <p>Keywords: Changemakers A sustainable world Big transformations Student-centered learning Collaborative learning Diet change</p>	<p><i>This article argues that language students and teachers are changemakers and that, in keeping with progressivist philosophy and the bottom-up social paradigm, they can play a powerful role in creating a better world. As our understanding of the world continues to increase, both students and teachers can use this increased understanding to initiate changes, so that we can transition to better times. These changes include transformations of all sizes. Small transformations take place within and among individuals, while big transformations involve systems and institutions and thousands or even billions of people, as well as companies, other organizations, and countries. Many in education concentrate on small transformations, and those, no doubt, carry weight. This article encourages us in language education to include contributing to or even attempting to initiate big transformations in a number of areas. In fact, working on all sizes of transformations simultaneously may be the most effective path. Examples are given and suggestions of such varied-sized transformations by language learners and teachers are made in three areas based on a review of research on student-centered learning, collaborative learning, and diet change. This article also suggests that students and teachers as changemakers could start with taking small steps, which then provide them with both the confidence and credibility necessary to advocate for big steps and create impactful changes.</i></p>

INTRODUCTION

Education plays an important role in society. More than a billion students are estimated to participate in primary and secondary education (UNICEF, 2018a), with another 200 million in higher education (The World Bank, 2017). That does not include various types of non-formal education, which also involve large numbers of students. Of course, tens of millions of teachers work with all these students. This article focuses on what students and teachers can do to promote a transition to better times for those in language education and, via classroom and institutional efforts, the rest of the world.

More than 100 years ago, Dewey (1897) proposed a philosophy of education known as progressivism. A central idea of progressivism calls on educational institutions to do more than prepare students to participate in society *after* they leave education. Instead, students can learn more and better by participating in society *while* they are studying. Furthermore, Dewey and his colleagues believed that students should not accept society as it is and then learn in order to carve out the best niche for themselves within the status quo. In contrast, students should seek to help society progress for the benefit of all, and students should learn with that altruistic, cooperative goal in mind (Dewey, 1916).

In the current century, scholars in language education have, along the lines of Dewey, called on students and their teachers to engage with society (e.g., Alsup et al., 2006; Burns, 2007; Crookes, 2013; Jacobs & Cates, 2012; Jacobs & Crookes, 2022; Maley & Peachey, 2017; Marshall & Anderson, 2009; Wallerstein & Auerback, 2004). This trend can be seen as part of a larger paradigm shift in society that can be called a bottom-up paradigm. This constitutes a shift away from top-down power toward bottom-up power, from standardization toward diversity, from hierarchy toward equality, and from competition to cooperation (Farrell & Jacobs, 2020).

This article suggests that too often, when it comes to making this shift toward a better society on a wide range of issues, such as climate change and poverty abatement, students and teachers confine themselves to making small, individual changes, and while such changes are beneficial, we in education, including in language education, should also consider playing a part in larger changes. Small changes are often individual changes, such as walking to a store to buy food rather than driving a car powered by fossil fuels. A larger, more systemic, institutional change might be for students and teachers to influence governments and companies and governments to shift from fossil fuels toward alternative energy sources.

Why does the language classroom tend to focus more on individual actions? Three possible reasons might explain this.

(1) There is probably a belief that small steps are well-suited especially to younger students. While small steps are fine, they should not be the only steps. Small steps can lead to larger steps, as students and teachers gain understanding of how to be changemakers and experience in catalyzing change. Fullan (1993) argued that large-scale, systemic change is needed if changes in education are to achieve a strong foundation. Senge et al. (2007) made the same argument as to society beyond education.

(2) Small steps provide the credibility to advocate for big steps. Because students and teachers are taking small steps, when they urge companies or governments to take big steps, it becomes a case of “Do as I say and as I do.”

(3) Small changes provide momentum for larger changes. Rather than saying, “Go big or go home” small changes supply students and teachers with the confidence to try for big changes.

The overarching idea of this article is that there is a need for a range of variable-sized changes in language education, and that students and teachers can initiate and support these changes.

In particular, the article explores how those of us in language education can, consistent with ideas from progressivism and the bottom-up paradigm shift toward a more equitable society, take the lead to contribute to large transformations in the following areas: student-centered learning, collaborative learning, and change toward plant-based diets. First, a brief overview of what we mean by students and teachers as changemakers is presented. Next, key ideas in each of the three areas of student-centered learning, collaborative learning, and change toward plant-based diets are reviewed and discussed. Examples are then given of changes of different sizes that might take place in these areas. Of course, readers will be the experts on adapting the ideas in this article to their own contexts.

On the notion of changemaker

Drayton (2006) and Chau and Shunmugam (2021) believed that everyone, including students and teachers, could be changemakers. Drayton (2006, p. 25) proclaimed, “The millennium when only a tiny elite could cause change is coming to an end.” He continued:

A generation hence, probably 20 to 30 percent of the world’s people, and later 50 to 70 percent, not just today’s few percent, will be changemakers and entrepreneurs. That world will be a fundamentally different and far safer, happier, more equal, and more successful place. To get there, we must end the infantilization of young people. They and the rest of us must enable all young people to be fully creative, initiatory, and powerful changemakers. We must also build the wisest possible financial and other institutions so that, as these young people become adults, the new citizen sector will draw them fully into an “everyone a changemaker” world.

In this article, we argue that those of us in language education can be powerful changemakers, and we consider three areas where we can initiate and enact changes. We first turn to student-centered learning as an area for change.

Student-centered learning

Briefly, student-centered learning involves students having more input into and taking more responsibility for their own learning and for the learning and welfare of others (Jacobs, Renandya, & Power, 2016; Keiler, 2018). Thus, student-centered learning fits well with progressivism and other moves toward a more egalitarian, bottom-up society. Features of student-centered learning include those listed in Table 1. For instance, key features are that students have some power over what and how they study (Winkler & Rybnikova, 2019), and are involved in assessing themselves, their peers, and the elements of their learning environment, including materials and teachers (Double, 2020). Overall, students participate actively in the learning process, and their emotions and motivations are taken into account (Sutter-Brandenberger, 2018).

Table 1
Features of student-centered learning

Features of Student-Centered Learning	Examples and Other Elaborations
Students have some choice about <u>what</u> they study	Having input into the projects they do, their extracurricular activities, and what they read.
Students have some choice about <u>how</u> they study	Having input into whether to study online, to study as a group, and to present what they learned via words, drawings, videos, skits, slideshows, etc.
Students are involved in assessment of themselves and others	Teacher-, peer- and self-assessment all take place, and students' voices count in assessing teachers, teaching materials, and education institutions.
Meaning matters	Rote learning is avoided. Students should understand what they are doing, e.g., understanding a text they are reading and why they are reading it. The text is not just to learn grammar.
Intrinsic motivation	Rather than highlighting extrinsic motivation, via grades and other rewards and punishments, the priority lies in connecting to and developing students' interests.
Connections	Students can see the ways that what and how they learn connect with the world beyond the classroom, now and in the future. This includes lifelong learning.
Students and teachers as fellow learners	Teachers accept that they and other experts have many gaps in their knowledge, and they look forward to joining with students in the joy of learning in an attempt to close some of these gaps.
Diversity	The class celebrates diversity in many forms, including diversity of nationality, religion, race, and current abilities, as well as differences in past achievement. Differences present learning opportunities; plus, accommodating everyone regardless of difference fosters inclusion.
Outside learning opportunities	Thanks in large part to Internet Communication Technology (ICT), students and teachers have so many ways to learn beyond the standard classroom resources. Examples include online museums, websites and other media developed specifically for children and other learners, and online communities of practice. Students can use these to teach classmates and teachers.
Student-student interaction	Students sometimes listen to and participate in discussions with their teachers, and other times, students work alone. However, students spend a significant amount of time doing group activities. Of course, teachers can be involved in this, and students

Features of Student-Centered Learning	Examples and Other Elaborations
	can work alone in preparation for participation in their groups.
Thinking skills	Basic knowledge that can be gained from educational materials and from listening to teachers plays a key role in education. At the same time, students, alone and with peers and teachers, need to go beyond the information they are given to apply, analyze, synthesize, evaluate, react to, and otherwise elaborate on what they learn from traditional sources.
Learning climate	The climate in a student-centered classroom encourages students and teachers to share their ideas and emotions, to see failure as a necessary part of learning, to recognize that everyone has strengths, and to value, thank, and praise all members of the classroom community.

Big and small moves toward student-centered learning

Many books, websites, and workshops advise on how language education can become more student-centered (e.g., Keiler, 2018). Most of this advice focuses on small transformations. For instance, teachers can give students more choice as to how they learn, a concept which resonates with Self-Determination Theory (Deci & Ryan, 1985; Lou et al., 2018). Such choices can include when an assignment needs to be submitted, whether students will work in groups of two, three, or four, and whether they will include mindmaps, videos, or tables in presentations they do. Students, too, can on their own make small changes. Examples include whether to spend time helping a younger family member with their homework; at lunch if, in order to promote inclusion of mainstreamed students, they will sit with a fellow student with mental challenges who sometimes has no companions (Mallanhanse, 2020); and whether after learning in a science class to grow plants, they will take the plants home, try to keep them alive, maybe grow more plants, and write journal entries about the experience.

The small moves that teachers and students make toward more student-centered education have significant value. Larger transformations can also be made. Indeed, sometimes the same move can be transformed from small to large. For example, in regard to the student-centered strategy of giving students greater choice (McDowell et al., 2019), a class or a group of teachers and students can compile and illustrate a list of ways to increase student choice. This list can be shared, starting at the school level, and thanks to the internet, video, and other technology, there is no limit to how far the ideas can be shared (Jung, 2020).

What teachers and students do to promote big steps toward student-centered learning needs to be accompanied by ongoing improvements, as feedback suggests new or modified ways to enhance what the class has done. Initiating ideas and then improving on their own ideas promote a feeling of agency among students (Moore, 2022). Furthermore, people in other

education contexts can develop their own versions of what one class has done. The originators will be proud to see their original creation adopted by others, progress, and change.

Another instance of a student-centered learning idea starting small and growing into large transformations could be students and teachers writing their own books and plays in the language classroom (Hadiri, 2019), not to mention creating other forms of media, including videos, blogs, and stickers. Books can be quite expensive, especially children's books, due to their many colors and hard covers. Fortunately, especially with ICT, but starting with old-fashioned paper and colored pencils, students, with assistance from teachers, can make their own books (Ivone et al., 2020). These can be shared in hard or soft copy, and activities can be suggested to accompany the books (Extensive Reading Foundation, n.d.). As with any effort, creating books involves a learning curve; even a six-page book with one sentence per page demands careful thinking, rounds of feedback, and multiple drafts. It should also be pointed out that book creation is not only for younger students. Students of any age can create for themselves and their peers, not to mention older students creating for younger ones (Sharpe et al., 1988), as well as creating for old members of their families and communities (Authors, under review).

Making books can start as a small transformation, but it can grow into a much larger one. Students and teachers, through education institutions, can exchange books with each other. For example, English teachers at a school in Japan asked their students to write story books. These were loaded onto the Xreading website (xreading.com), an online virtual library with books from about 20 publishers, and shared along with the publishers' graded readers. Once books go online, anyone can be given access. Book clubs and other means of discussing books can begin and flourish (Lewis & Zisselsberger, 2019). Books, as well as other learning materials, have plots and themes. These too can come to the aid of student-centered learning. For example, learning materials can have plots which show students in action, on their own and together, using their wits to overcome challenges. Similarly, Freire (2013), working in the progressive tradition in a technology-poor context, helped his students create their own materials, with a view that gaining literacy in language was an important step in understanding the world and how to change it.

Some social critics (e.g., Artz, 2015) believe that people have become overly dependent on large companies for their entertainment. One of the disadvantages of this situation flows from the fact that local cultures and values may become endangered when too large a proportion of books, for example, come from beyond. Competing with media giants involves many difficulties, and funds will be needed, although in some areas, such as video cameras, costs have been falling, and the internet provides distribution channels to very small players. Despite these advances, the doubters, including the doubting voices inside teachers and students' heads, will say, "Impossible!" However, as Coates (2015), a well-known advocate for Black Lives Matter, advised, we need to try for big transformations in order to stay sane, even if we are likely to fail.

Collaborative learning

One means of implementing student-centered learning in the language classroom involves collaborative learning, also known as cooperative learning. In collaborative learning, students act together in order to promote everyone's learning, motivation, goals, and enjoyment. A great deal of research with many ages of students, studying many different subjects and in a wide variety of countries supports the use of collaborative learning. Features of collaborative learning are summarized in Table 2 (Jacobs & Renandya, 2019; Johnson, Johnson, & Stanne, 2000). Among these features are support from peers, responsibility and opportunity to participate in their group's activities (Johnson & Johnson, 2009), peer interaction involving higher-order thinking (Erdogan, 2019), development of the skill and inclination to learn with a wide range of peers (Aryanti & Widodo, 2020), and an overall preference for cooperation rather than competition with or ignoring others. Cooperation increases the power of those near the bottom of society to promote progress toward great equity.

Table 2
Features of collaborative learning

Features of Collaborative Learning	Examples and Other Elaborations
Students receive support from peers	Teachers encourage students to feel positively interdependent with each other, i.e., students feel as though their outcomes are positively correlated. What helps one group member helps everyone in the group.
Students feel pressure to do their fair share in their groups	Students cannot let peers do all the work and learning for them. Everyone needs to show and tell what they know/do not know, can/cannot do.
Students have many opportunities to participate in their groups	No one is excluded from their group. Everyone is valuable and needs to learn, because everyone feels their outcomes are positively correlated with those of their groupmates.
In different groups, many students are simultaneously speaking	Groups are usually small (between 2-4 members). Sometimes, twosomes combine to form foursomes. Seldom does one student or one group speak to the entire class.
Students go beyond exchanging information and do higher order thinking	As students share with each other, they go beyond the information they were given, developing ideas that are new to them and finding links between new and old information.
Learning social skills	Time is spent encouraging students to develop and utilize skills that promote beneficial interaction with others. These skills include asking for/providing reasons, disagreeing politely, praising with reasons and checking if others understand.

Features of Collaborative Learning	Examples and Other Elaborations
Heterogeneous grouping	Usually, students form groups that represent the diversity among the class members. For instance, in a class where most students are from two ethnicities, each ethnicity will normally be represented fairly evenly in all groups.
Enjoying personal interaction	Human beings are social animals, but in many classes, the rules are 'eyes on your own paper; no talking to your neighbours'. Collaborative learning provides many opportunities for interpersonal interaction; indeed, a portion of time can even be spent on chatting to promote a friendly atmosphere in the group.
Groups' focus is on individual learning	Groups have not completed their task until everyone in the group can do the task. It is insufficient if only the group as a unit can complete the task.
Everyone needs to learn all roles	A learning group differs from a company. In a company, whoever does a task best should do the task. In education, those who do a task best should not do the task; instead, they should teach the others.
Team Then Teacher	Groups try to stand on their own. When a group member has trouble understanding something, their first option should be to ask their groupmates. If none of them can help, the group can turn to another group for assistance. The teacher provides an important help option, but not the first option.
Cooperation as a value	Not only can the feeling of positive interdependence exist among students in a group, the same feeling can spread throughout the class, the school, and beyond. Ideally, it can reach the entire world, including other species.

Big and small moves toward collaborative learning

As mentioned at the beginning of this section on collaborative learning, a large amount of research in language education over many years supports the use of student-student cooperation. Furthermore, research in other fields of human endeavour (e.g., Deutsch, 1949; Tomasello & Vaish, 2013) also suggests that we should make cooperation our first option when we undertake any task. Additionally, in recent years, studies in the relatively new field of neuroscience provide even more support for the belief that students can benefit by working together (Cozolino, 2013; Lieberman, 2007, 2013).

With collaborative learning, as with other forms of student-centered learning, small and big

transformations, not to mention moves of any size in between, can be useful. On a daily basis, students have opportunities to make moves that promote collaboration and build a collaborative atmosphere in or out of education institutions. However, in many cultures, strong forces push against collaboration. Anti-collaboration sentiments are expressed in the following beliefs (e.g., Lin-Healy & Small, 2013): strong people only depend on themselves; the only people who want to collaborate with you are those who are worse than you; cooperation slows down the fast ones and prevents them from achieving their potential; nice guys finish last; people are happy to accept your help; but when you need help, they are nowhere to be found; competition is always a good thing, because it forces us to do our best; without competition, we would all loaf; collaboration among students is just the blind leading the blind; and too many cooks spoil the broth.

In order to counter these anti-collaboration sentiments, people need ongoing evidence of various pro-collaboration sentiments (Jacobs, 2014; Rowland, 2018; Tabibnia & Lieberman, 2007) including: two heads are better than one; many hands make light the work; if you want to go quickly, go alone; if you want to go far, go together; nothing new that is really interesting comes without collaboration; you're not really listening unless you're willing to be changed by the other person; those who teach learn twice; ubuntu (pronounced Ooh-BOON-too) – a Zulu word meaning "I am, because we are;" and many ideas blossom when transplanted into another mind.

The above beliefs supporting collaboration contain powerful messages. Even more supportive of transformations is when we can help ourselves and others experience the truth of those messages. For example, Webb et al. (2009) summarized a body of research which can be viewed as concluding that when we teach others by explaining, not just giving answers, we experience the truth of the phrase, "Those who teach learn twice." Similarly, when we are brainstorming with others and, as a result, develop a solution for a problem that had been blocking our progress, this experience resonates with the sayings, "Two heads are better than one" and "Nothing new that is really interesting comes without collaboration" (Wen, 2019) and with Social Constructionist Theory (Cunningham & Bergström, 2020). However, we often need to take the small but essential first step to teach others (or responding positively when they ask to be taught) and the first step to invite people to collaborate with us (or responding positively to their invitations). In the same way, often the trust so important to collaboration must be built one small step at a time.

When thinking about big transformations associated with collaborative learning, many of the features of collaborative learning described in Table 2 come to mind. In particular, the feature "cooperation as a value" inspires many big action ideas. For example, we can put ourselves in the shoes of people who face discrimination and campaign for governments to adopt laws making discrimination illegal, for example, discrimination against homosexuals or against people with disabilities (Henry & Thorsen, 2019). In the teaching of English, an increasing number of educators are collectively challenging the monolingual native-speaker bias, or an imagined 'Standard English' variety, in favour of Global Englishes, that is, valuing a wide range of varieties of English, including learner English (e.g., Galloway & Numajiri, 2020; Man & Chau, 2019; Man et al., 2021; Smidt et al., 2021; Stevens, 2019).

Going further with the concept of cooperation as a value, we can extend the bottom-up paradigm to show concern not just for humans near the bottom of humans' social hierarchy but also for the nonhuman animals who are abused in circuses and zoos, and campaign for governments to ban animal circuses and zoos, and organize people to attend human circuses, such as Cirque du Soleil (<https://www.cirquedusoleil.com>), or to visit animal sanctuaries, for example, Edgar's Mission (<https://www.edgarsmission.org.au>) instead. Students and teachers can also begin employing nonspeciesist language and serving as model speakers for others around them when using, for example, the relative pronoun *who* rather than *that* or *which* to refer to our fellow animals (Chau & Jacobs, 2021).

Diet change

The previous two changes discussed in this article – toward student-centered learning and collaborative learning – focus mostly on how people learn. Student-centered learning offers more power as well as more responsibility, and collaborative learning provides a set of principles and techniques, supported by research, for student to deploy that power and responsibility. The next change to be discussed focuses on one of the many ways that students and their teachers can act to aid society's progress forward.

Why change toward a plant-based diet

What students and teachers eat and drink (i.e., their diets) seems to influence how well they carry out their roles as learners and teachers, bearing in mind that, as mentioned earlier in this article, students can teach and teachers can learn from and with students. For instance, research suggests that adequate water consumption can enhance cognitive performance in primary schoolers (Drozdowska et al., 2020), young adults (Zhang et al., 2020), and seniors (Pross, 2017). Our diets also influence cognition and overall health long-term, not just while studying or teaching (Melina, Craig, & Levin, 2016).

What people eat has a great deal of impact beyond the health of those eating a particular diet. In recent years, leading scientific organizations and think tanks have strongly recommended that our species needs to reduce the amount of animal-based foods (the meat, eggs, and milk of land and aquatic animals) in their diets and increase the amount of plant-based foods, including fruits, vegetables, grains, legumes, nuts, and roots (Carrington, 2020). In the case of school children, for example, it has been suggested that in contrast to animal-based diets, plant-based foods rich in antioxidant properties can beneficially affect inflammatory status, which protects against the development of chronic diseases (Suhett et al., 2021).

The shift toward plant-based diets can take many forms, from a weekly meatless day to a 100 percent alternative protein diet. Table 3 explores nine benefits of such a dietary shift. Firstly, a great deal of research suggests that plant-based diets are associated with improved health outcomes. Many pandemics, both in this century and in previous centuries, have spread to humans from other animals, often related to humans' use of fellow animals for food. The billions of low-income people in the world suffer from animal agriculture, that is, the raising of animals for food. For example, the inefficiency of animal agriculture exacerbates World

Hunger. Additionally, it is a major contributor to the accumulation of greenhouse gases and the loss of the lands of indigenous peoples, and low-income people suffer inordinately from climate change. While the animals used for food experience short, painful, and unnatural lives, the humans who work in animal agriculture often experience low pay and unhealthy, dangerous working conditions.

Table 3
Benefits of moving toward plant-based diets

Benefits of Moving Toward a Plant-Based Diet	Examples and Other Elaborations
Human health	While many controversies exist in nutrition and health (as in the other topics in this table), broad agreement exists that diets centered on plants contribute to reduction in the risk for such diseases as diabetes, heart disease, certain cancers, obesity and autoimmune diseases (Ornish & Ornish, 2020).
Pandemics	Many pandemics, including COVID-19, AIDS, SARS, bird flu and swine flu are thought to be zoonotic in origin, i.e., the diseases spread to humans after developing in other animals (Greger, 2020). The close confinement practices used in animal agriculture, plus the close proximity between other animals and humans increase the chances of future, perhaps more serious, pandemics.
Food for malnourished people	Hundreds of millions of people suffer from malnutrition and millions of children die every year from this preventable cause (UNICEF, 2018b; United Nations, 2019). Malnutrition is preventable because we grow enough plant food to feed everyone, but too much of that plant food is fed to animals whom wealthier humans later eat (Shepon et al., 2018).
Environmental protection, including reduced greenhouse gas emissions	Animal agriculture harms the environment in two main ways (Steinfeld et al., 2006). Firstly, growing food to feed to animals and later eating those animals is inefficient, and this inefficiency means more carbon-capturing forests need to be cut down or burned down. Secondly, the animals whom we eat produce methane and nitrous oxide, greenhouse gases more powerful than carbon dioxide.
Indigenous people	Most indigenous people remaining in the world live in rural areas. Unfortunately, many such areas are being destroyed to provide land for crops eaten by the nonhuman animals whom humans later eat. Thus, the homes and lifestyles of indigenous people come under threat. (Branford & Torres, 2020).

Benefits of Moving Toward a Plant-Based Diet	Examples and Other Elaborations
Climate justice	One of the cruel ironies of the climate crisis lies in the fact that those humans responsible for the smallest amount of greenhouse gas release – the billions of poor people – are the ones who suffer most from the flooding, droughts, and other consequences of global warming (Sengupta & Ali Manik, 2020).
Kindness to nonhuman animals	Humans are estimated to consume approximately 70 billion fellow land animals and perhaps more than 100 billion aquatic animals annually, and consumption is rising (https://www.adaptt.org/about/the-kill-counter.html). These sentient beings are killed far in advance of their possible lifespans. Often, they are raised in crowded, unnatural conditions.
Working conditions in animal agriculture	People working in animal agriculture are often migrants or refugees, pressured to work in unsafe conditions for lower than average compensation (Lowe, 2016). A particularly serious example can be seen in the slavery in which people are trapped in the fishing industry in Southeast Asia (Tungpuchayakul, 2019).
Siting of CAFOs where low-income people live	The typical setting where nonhuman animals are raised before slaughter is called a Concentrated Animal Feeding Operation (CAFO). Tens of thousands of animals can live in a single CAFO. Animal waste from CAFOs pollute the surrounding air, water, and soil. As low-income people usually have less political power, CAFOs tend to be sited near to where they live (Weschler & Speicher, 2018).

Big and small moves toward plant-based diets

With diet, many small transformations come to mind, as many middle and upper income people attempt to modify their diet to lose weight and for other reasons of health and appearance. The benefits listed in Table 3 of moving toward a plant-based diets provide other reasons for diet modification. Suggestions for diet change include to understand why one is changing (e.g., read, watch videos, listen to podcasts). This links with the Information Processing Model which states that for information to gain access to Long-Term Memory, rote learning will seldom work; instead students must understand (Zedeck, 1977). Additional suggestions parallel some of those given to people who are beginning to use a new language or learning anything new (Duckworth, 2016; Rubin, 1975): for example, start slowly, such as one day or one meal a week (Green Monday, 2021); be ready to experiment with recipes, eateries, items

in supermarkets, different cuisines; give your taste buds time to adjust; have a buddy to advise you or take the journey with you; when difficulties arise, remember your reasons for making the change, and this will help you persevere if difficulties arise; and do not worry if errors are made.

As to large transformations on behalf of diet change, many possibilities exist. As a language classroom project, for example, students can compile a list of eateries near their school that offer plant-based options and then publicize these to as many people as possible through the poster they design and/or the posts they make on social media, such as Tiktok. As part of the same project, students can talk to eateries that serve animal-based foods about increasing their range of plant-based options and labelling them so that diners can more readily identify which do and do not include animal-based ingredients. Entrepreneurship offers another way to promote larger changes (Shapiro, 2020). Recently, many new food alternatives have been developed, for example, yogurt made from coconut milk, chicken made from just a small number of chicken cells, and many new eateries have opened (<https://www.happycow.net>). Of course, not just the entrepreneurs are important, so too are their staff, customers, and those who publicize these ventures (e.g., [abillion.com](https://www.abillion.com)) and encourage organizations, such as school food services, to use their products. Both students and teachers can join efforts to brainstorm ideas in their creative language classroom that contribute to this direction.

CONCLUSION

This article has promoted the idea that language education can be part of a larger effort to empower society to progress and move toward greater equity. In order to harness this power of language education, changes both small and large are needed. Too often students, their families, and their teachers have focused only on small changes. In the article, theory and research were cited, at the same time that practical change ideas were offered. Change ideas of various sizes were suggested in three possible areas: student-centered learning, collaborative learning, and plant-based diets. Student-centered learning promotes a more democratic, active, lifelong learning society. Collaborative learning plants seeds for a more cooperative, inclusive, and diverse society. Diet change can promote a healthier, greener, more just society, a society in which humans and our fellow animals live in greater harmony and happiness. To achieve success toward these three areas, large changes involving society in general need to be made, and language students and their teachers acting as changemakers can catalyze these changes, which in turn contribute to realizing and enhancing the true meaning and purpose of education.

THE AUTHORS

George M. Jacobs, Ph.D. was a language specialist at the Southeast Asia Ministers of Education Organisation's Regional Language Centre in Singapore. He is now Adjunct Professor at Universiti Malaya. He wears at least two hats, as an educator (visit [georgejacobs.net](https://www.georgejacobs.net) for some of his works) and as an activist urging us humans to treat our fellow animals more kindly, such as by eating foods produced without enslaving and killing them.

george.jacobs@gmail.com

Meng Huat Chau, Ph.D. worked as a teacher at primary and secondary schools before moving to higher education (roughly in that order). At Universiti Malaya, he teaches and supervises research in applied linguistics based on ecojustice considerations for a sustainable world. He is also Adjunct Professor at Jeonbuk National University in South Korea.

chaumenghuat@yahoo.co.uk

Nurul Huda Hamzah, Ph.D. is a senior lecturer at the Faculty of Languages and Linguistics, Universiti Malaya. She obtained her PhD from Newcastle University, UK. Her areas of expertise are sociolinguistics, ethnography and anthropology.

nurul.huda.hamzah@um.edu.my

REFERENCES

- Alsup, J., Emig, J., Pradl, G., Tremmel, R., Yagelski, R. P., Alvine, L., ..., & Sawyer, M. (2006). The state of English education and a vision for its future: A call to arms. *English Education*, 38(4), 278-294.
- Artz, L. (2015). *Global entertainment media: A critical introduction*. John Wiley & Sons.
- Aryanti, Y., & Widodo, E. (2020). The effectiveness of Student Team Achievement Divisions (STAD) cooperative learning in science learning on analysis skills and social skills. *Journal of Science Education Research*, 4(1), 22-27.
- Branford, S., & Torres, M. (2020). Key Amazon grain route blocked by Indigenous protest over funding, Grainrail. <https://news.mongabay.com/2020/08/key-amazon-grain-route-blocked-by-indigenous-protest-over-funding-grainrail/>
- Burns, L. D. (2007). On being unreasonable: NCTE, CEE, and political action. *English Education*, 39(2), 120-145.
- Carrington, D. (2020, June 19). Why you should go animal-free: 18 reasons for meat-eating debunked. *The Guardian*. <https://www.theguardian.com/environment/2020/jun/19/why-you-should-go-animal-free-arguments-in-favour-of-meat-eating-debunked-plant-based>
- Chau, M. H., & Jacobs, G. M. (2021). Applied Linguistics, language guidelines, and inclusive practices: The case for the use of who with nonhuman animals. *International Journal of Applied Linguistics*, 31(2), 301-303. <https://doi.org/10.1111/ijal.12357>
- Chau, M. H., & Shunmugam, K. (2021). Every teacher a changemaker: Reflections on teacher agency and empowerment. *The English Teacher*, 50(2), 85-101.
- Coates, T-N. (2015). *Between the world and me*. Penguin Random House.
- Cozolino, L. (2013). *The social neuroscience of education: Optimizing attachment and learning in the classroom*. W.W. Norton.
- Crookes, G. V. (2013). *Critical ELT for action*. Routledge.
- Cunningham, U., & Bergström, A. (2020). Reimagining learning in a language education course thrust online: Social constructivism in times of social isolation. <https://www.diva-portal.org/smash/get/diva2:1508596/FULLTEXT02.pdf>
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York, NY: Plenum Press.
- Deutsch, M. (1949). A theory of co-operation and competition. *Human Relations*, 2(2), 129-152.
- Dewey, J. (1897). My pedagogic creed. *The School Journal*, 54, 77-80.
- Dewey, J. (1916). *Democracy and education: An introduction to the philosophy of education*. Macmillan.
- Double, K. S., McGrane, J. A., & Hopfenbeck, T. N. (2020). The impact of peer assessment on academic performance: A meta-analysis of control group studies. *Educational Psychology Review*, 32(2), 481-509.

- Drayton, B. (2006). Everyone a changemaker: Social entrepreneurship's ultimate goal. *Innovations*, 1(1), 80-96. <https://ssrn.com/abstract=980722>.
- Drozowska, A., Falkenstein, M., Jendrusch, G., Platen, P., Luecke, T., Kersting, M., & Jansen, K. (2020). Water consumption during a school day and children's short-term cognitive performance: The CogniDROP randomized intervention trial. *Nutrients*, 12(5), 1297. <https://doi.org/10.3390/nu12051297>
- Duckworth, A. (2016). *Grit: The power of passion and perseverance*. Random House.
- Erdogan, F. (2019). Effect of cooperative learning supported by reflective thinking activities on students' critical thinking skills. *Eurasian Journal of Educational Research*, 19(80), 89-112.
- Extensive Reading Foundation. (n.d.). *Useful resources*. <https://erfoundation.org/wordpress/useful-resources/>
- Fairtrade Foundation. (n.d.). *What is fairtrade*. <https://www.fairtrade.org.uk/what-is-fairtrade/>
- Farrell, T. S. C., & Jacobs, G. M. (2020). *Essentials of successful English language teaching* (2nd ed.). Bloomsbury.
- Fast, E., & Kinewesquao, C. R. (2019). Victim-blaming and the crisis of representation in the violence prevention field. *International Journal of Child, Youth and Family Studies*, 10(1), 3-25. <https://doi.org/10.18357/ijcyfs101201918804>
- Freire, P. (2013). *Pedagogy of the oppressed*. Routledge.
- Fullan, M. (1993). *Change forces: Probing the depths of educational reform*. Routledge.
- Galloway, N., & Numajiri, T. (2020). Global Englishes language teaching: Bottom-up curriculum implementation. *TESOL Quarterly*, 54(1), 118-145.
- Green Monday. (2021). *What we do*. <https://greenmonday.org/>
- Greger, M. (2020). *How to survive a pandemic*. Bluebird Books for Life.
- Hadiri, M. (2019). Improving speaking skills through acting-out student-made play scripts. *Tafhim Al-'Ilmi*, 11(1), 91-118.
- HALT (Harassment Assault Law-Student Team). (2020). Harvard Law School. <https://orgs.law.harvard.edu/halt/>
- Harvey, F. (2020, May 27). Improve water supply in poorer nations in order to cut plastic bottle use, say experts. *The Guardian*. <https://www.theguardian.com/environment/2020/may/27/improve-water-supply-in-poorer-nations-to-cut-plastic-use-say-experts>
- Hawrylyshyn, K. (2021). *Five reasons why fairtrade is the global movement for trade justice*. <https://www.fairtrade.net/news/five-reasons-why-fairtrade-is-the-global-movement-for-trade-justice>
- Henry, A., & Thorsen, C. (2019). Weaving webs of connection: Empathy, perspective taking, and students' motivation. *Studies in Second Language Learning and Teaching*, 9(1), 31-53.
- Ivone, F. M., Jacobs, G. M., & Santosa, M. H. (2020). Information and Communication Technology to help students create their own books the dialogic way. *Beyond Words*, 8(2), 78-91.
- Jacobs, G. M. (2014). *Quotes about cooperative learning and education generally*. https://www.academia.edu/3460176/Quotes_about_cooperative_learning_and_education_generally
- Jacobs, G. M., & Cates, K. (2012). Global education in second language teaching. *International Journal of Physical and Social Sciences*, 2(8), 1-22.
- Jacobs, G. M., & Crookes, G. V. (2022). *Becoming community engaged educators*. Springer.
- Jacobs, G. M., & Renandya, W. A. (2019). *Student centered cooperative learning: Linking concepts in education to promote student learning*. Springer Nature.
- Jacobs, G. M., Renandya, W. A., & Power, M. A. (2016). *Simple, powerful strategies for student centered learning*. Springer.
- Johnson, D. W., & Johnson, R. T. (2009). An educational psychology success story: Social interdependence theory and cooperative learning. *Educational Researcher*, 38(5), 365-379).
- Johnson, D. W., Johnson, R. T., & Stanne, M. B. (2000). *Cooperative learning methods: A meta-analysis*. Cooperative Learning Center, University of Minnesota. <http://www.co-operation.org/pages/cl-methods.html>

- Jung, C. D. (2020). *Motivation through student-made video projects: A qualitative case study* [Unpublished doctoral thesis]. University of Calgary, Calgary, Canada.
- Keiler, L. S. (2018). Teachers' roles and identities in student-centered classrooms. *International Journal of STEM Education*, 5(1), 34. <https://doi.org/10.1186/s40594-018-0131-6>
- Lewis, M. A., & Zisselsberger, M. G. (2019). Scaffolding and inequitable participation in linguistically diverse book clubs. *Reading Research Quarterly*, 54(2), 167-186.
- Lieberman, M. D. (2007). Social cognitive neuroscience: a review of core processes. *Annual Review of Psychology*, 58, 259-289.
- Lieberman, M. (2013). *Social: Why our brains are wired to connect*. Crown.
- Lin-Healy, F., & Small, D. A. (2013). Nice guys finish last and guys in last are nice: The clash between doing well and doing good. *Social Psychological and Personality Science*, 4(6), 692-698.
- Lou, N. M., Chaffee, K. E., Lascano, D. I. V., Dincer, A., & Noels, K. A. (2018). Complementary perspectives on autonomy in self-determination theory and language learner autonomy. *TESOL Quarterly*, 52(1), 210-220.
- Lowe, P. (2016, August 11). Working 'The Chain': Slaughterhouse workers face lifelong injuries. *NPR*. <https://www.npr.org/sections/thesalt/2016/08/11/489468205/working-the-chain-slaughterhouse-workers-face-lifelong-injuries>
- Maley, A., & Peachey, N. (Eds.). (2017). *Integrating global issues in the creative English classroom: With reference to the United Nations Sustainable Development Goals*. British Council. https://www.teachingenglish.org.uk/sites/teacheng/files/PUB_29200_Creativity_UN_SDG_v4S_WEB.pdf
- Mallanhanse, A. K., Alias, N. F., & Bidin, S. S. N. B. A. (2020). Peer acceptance among learning disabilities (Id) and mainstream students in inclusive classroom in a primary school. *South Asian Journal of Social Sciences and Humanities*, 1(2), 16-25.
- Man, D., & Chau, M. H. (2019). Learning to evaluate through that-clauses: Evidence from a longitudinal learner corpus. *Journal of English for Academic Purposes*, 37, 22-33. <https://doi.org/10.1016/j.jeap.2018.11.007>
- Man, D., Lee, K. Y., Chau, M. H., & Smidt, E. (2021). Learning to evaluate through that-clauses: Insights from a longitudinal study of Bruneian student writing. *International Journal of Computer-Assisted Language Learning and Teaching*, 11(2), 84-97. <https://doi.org/10.4018/IJCALLT.2021040106>
- Marshall, C., & Anderson, A. L. (Eds.). (2009). *Activist educators: Breaking past limits*. Routledge.
- McDowell, T. R., Schmittzehe, E. T., Duerden, A. J., Cernusca, D., Collier, H., & Woelk, K. (2019). A student-choice model to address diverse needs and promote active learning. *Journal of Science Education and Technology*, 28(4), 321-328.
- Melina, V., Craig, W., & Levin, S. (2016). Position of the Academy of Nutrition and Dietetics: Vegetarian diets. *Journal of the Academy of Nutrition and Dietetics*, 1970-1980. <https://doi.org/10.1016/j.jand.2016.09.025>
- Moore, I. (2022). The effect of student voice on the perception of student agency. *International Journal of Educational Research*, 112, 101923.
- National School Boards Association. (2020). *Black students in the condition of education 2020*. <https://www.nsba.org/Perspectives/2020/black-students-condition-education>
- Ornish, D., & Ornish, A. (2019). *Undo it!: How simple lifestyle changes can reverse most chronic diseases*. Ballantine Books.
- Pross, N. (2017). Effects of dehydration on brain functioning: A life-span perspective. *Annals of Nutrition and Metabolism*, 70(Suppl. 1), 30-36.
- Rowland, L. (2018, February). Kindness: Society's golden chain? *The Psychologist*, 31, 30-35. Retrieved from <https://thepsychologist.bps.org.uk/volume-31/february-2018/kindness-societys-golden-chain>
- Rubin, J. (1975). What the "good language learner" can teach us. *TESOL Quarterly*, 9(1), 41-51.
- Senge, P. M., Lichtenstein, B. B., Kaeufer, K., Bradbury, H., & Carroll, J. S. (2007). Collaborating for systemic change. *MIT Sloan Management Review*, 48(2), 44.

- Sengupta, S., & Ali Manik, J. (2020, July 30). A quarter of Bangladesh is flooded: Millions have lost everything. *The New York Times*. <https://www.nytimes.com/2020/07/30/climate/bangladesh-floods.html>
- Shapiro, P. (2020). *Business for good podcast*. <https://www.businessforgoodpodcast.com/>
- Sharpe, L., Randall, S., & Kosier, E. (1988). Cross-age, writing/reading. *The Reading Teacher*, 41(8), 860-863.
- Shepon, A., Eshel, G., Noor, E., & Milo, R. (2018). The opportunity cost of animal based diets exceeds all food losses. *Proceeding of the National Academy of Sciences of the United States*, 115(15), 3804-3809. <https://doi.org/10.1073/pnas.1713820115>
- Smidt, E., Chau, M. H., Rinehimer, E., & Leever, P. (2021). Exploring engagement of users of Global Englishes in a Community of Inquiry. *System*. <https://doi.org/10.1016/j.system.2021.102477>
- Steinfeld, H., Gerber, P., Wassenaar, T. D., Castel, V., Rosales, M., Rosales, M., & de Haan, C. (2006). *Livestock's long shadow: Environmental issues and options*. Food & Agriculture Organization. <http://www.fao.org/3/a-a0701e.pdf>
- Stevens, P. (2019). *Viewpoint: The silencing of ESL speakers*. <https://www.shrm.org/resourcesandtools/hr-topics/behavioral-competencies/global-and-cultural-effectiveness/pages/viewpoint-the-silencing-of-esl-speakers.aspx>
- Suhett, L. G., Hermsdorff, H. H. M., Ribeiro, S. A. V., Filgueiras, M. D. S., Shivappa, N., Hébert, J. R., & de Novaes, J. F. (2021). The dietary inflammatory index is associated with anti-and pro-inflammatory adipokines in Brazilian schoolchildren. *European Journal of Nutrition*, 60(5), 2841-2849.
- Sutter-Brandenberger, C. C., Hagenauer, G., & Hascher, T. (2018). Students' self-determined motivation and negative emotions in mathematics in lower secondary education—Investigating reciprocal relations. *Contemporary Educational Psychology*, 55, 166-175.
- Tabibnia, G., & Lieberman, M. D. (2007). Fairness and cooperation are rewarding: Evidence from social cognitive neuroscience. *Annals of the New York Academy of Sciences*, 1118(1), 90-101.
- The World Bank. (2017). *Higher education*. <https://www.worldbank.org/en/topic/tertiaryeducation>
- Tomasello, M., & Vaish, A. (2013). Origins of human cooperation and morality. *Annual Review of Psychology*, 64, 231-255.
- Tungpuchayakul, P. (2019, September 24). Slavery on the high seas: How Southeast Asia can end forced labour on fishing boats. *South China Morning Post*. <https://www.scmp.com/comment/opinion/article/3030001/slavery-high-seas-how-southeast-asia-can-end-forced-labour-fishing>
- UNICEF. (2018a). *Education*. <https://www.unicef.org/education>
- UNICEF. (2018b). *Malnutrition rates remain alarming: Stunting is declining too slowly while wasting still impacts the lives of far too many young children*. <http://data.unicef.org/topic/nutrition/malnutrition/#>.
- Wallerstein, N., & Auerbach, E. (2004). *Problem-posing at work: Popular educator's guide*. Grass Roots Press.
- Webb, N. M., Franke, M. L., De, T., Chan, A. G., Freund, D., Shein, P., & Melkonian, D. K. (2009). 'Explain to your partner': Teachers' instructional practices and students' dialogue in small groups. *Cambridge Journal of Education*, 39(1), 49-70.
- Wen, Y. (2019). *Computer-supported collaborative Chinese second language learning: Beyond brainstorming*. Springer Nature.
- Weschler, M., & Speicher, A. (Directors). (2018). *Right to harm*. [Film]. Hourglass Films.
- Winkler, I., & Rybnikova, I. (2019). Student resistance in the classroom—Functional-instrumentalist, critical-emancipatory and critical-functional conceptualisations. *Higher Education Quarterly*, 73(4), 521-538. <https://doi.org/10.1111/hequ.12219>
- Zedeck, S. (1977). An information processing model and approach to the study of motivation. *Organizational Behavior and Human Performance*, 18(1), 47-77.

Zhang, J., Zhang, N., He, H., Du, S., & Ma, G. (2020). Different amounts of water supplementation improved cognitive performance and mood among young adults after 12 h water restriction in Baoding, China: A randomized controlled trial (RCT). *International Journal of Environmental Research and Public Health*, 17(21), 7792. <https://doi.org/10.3390/ijerph17217792>