

Prospectus: A Shift in our Educational Focus to Inquiry, Concepts, and Skills

By

Meredith Phinney

Introduction

The Global Education Monitoring Report 2020 addresses the pressing issue of inclusivity in education. One clear recommendation was the idea of adapting a curriculum that is “...relevant, flexible and responsive to needs” (p. 17). The report recognizes that we live in a world that aligns its curriculum with privilege and certain types of knowledge. The report highlights the bias in many curriculums within rural and urban areas, the use of textbooks, and the effect of language use in schools. Therefore, it is of utmost importance that we examine our 21st-century curriculum and work to find a way that it can adapt to our ever-changing world. One way we might be able to mitigate some of the biases is to embrace a more inquiry, concepts, and skills-based focus over simply delivering content that might not apply to all.

Part I

The Problem

With the onset of COVID-19 in 2020, education practices changed at a rapid pace. Teachers and students went from attending school in a traditional bricks-and-mortar setting to teaching remotely in an online environment. This massive shift served as an important reminder that it might be time to examine some of the traditional practices we may use in our everyday classrooms. At the same time, it served as an essential reminder of the inequity within the educational system today. Hampson et al. (2021) point out that

As children grow older, they become less and less engaged in school – when one would hope that the reverse would be true. And this is a bigger problem for the most disadvantaged students, who consistently show lower levels of engagement. (Para. 3).

Therefore, it becomes the job of educators to find innovative solutions to engage all of our students regardless of wealth or status. The Global Risk Report 2022 re-iterates that COVID - 19 has damaged the social cohesion in countries to detrimental levels and perceived it as a

critical threat that will damage our world. The report highlights that over the next ten years, the lack of social cohesion will cause more significant disparity and inequality that will affect the "-economic, political, technological, and intergenerational- generational—which was already challenging societies even before income disparities increased through the pandemic. These disparities are now expected to widen further” (p.16).

The world has changed. Over the past three years, students have been irrevocably changed by the onset of COVID-19, which leaves us in a complex world with many problems. Learning that may have been applicable or relevant in the past does not always apply today. If we want to create problem- solvers who will address the issues we are facing today, then we must address what we teach our children in schools. Erickson (2011) points out that we live in a world that has moved from national to global. We have problems that need solving on an international level from environmental, climate change, immigration and emigration, conflicts with no resolutions, health problems, and the list continues to grow. The skills that may have been required in the past are almost no longer applicable in today's globalized world.

There is no doubt that the time for change is upon us. In this increasingly globalized world, we need to teach our students to identify problems in the world and then begin to try and determine solutions. There is an argument that using an inquiry, concept, and skills-based curriculum would be a worthy goal for our schools today. Instead of focusing on content, why not imagine a curriculum that uses concepts and skills to drive the curriculum? According to Yarim et al. (2012) “In multi-stakeholder learning environments students are argued to profit from being involved in real world transdisciplinary projects on multiple scales, bridging the science-society gap, and applying various approaches and methods for facing complex problems” (as cited in Oonk, p. 5, 2016). Therefore, if we focused on inquiry, skills and concepts, we may be addressing the problems of inequality or content that is not

applicable to different groups. Problems that are happening in China will certainly differ from those that are happening in Turkey, or perhaps not, but let us begin to involve our students in the process. Hampson et al. (2020) maintain that with the introduction of technology, there is no reason that each child cannot tailor their learning to a more personalized and relevant way. The role of passion learning is meant to engage learners to pursue whatever they are interested. This independent inquiry leads to the greater engagement that we want for our students.

Personal Relevance

Balim (2016) created a study posited that inquiry or discovery-based learning affected academic achievement, scores of retention of learning, and perception of inquiry learning skills scores, both on cognitive and affective levels. This evidence helps to confirm what some educators have always believed about the role of inquiry, concepts and skills in education. As an International Baccalaureate (IB)- Middle Years Programme (MYP) teacher since 2005, the belief in the mission and aims of the IB have helped to guide my passion for inquiry and concept-based learning. Their mission states, “The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect” (p. 3). As someone who has developed units of inquiry based on this philosophy, I have had the opportunity to see first-hand the difference that inquiry, skills, and concept-based learning can have on students. One such instance occurred in Ho Chi- Minh, Vietnam, in 2014, where a Grade 8 class created a KWL chart regarding Iran. The class completed some research on the country prior to reading Marjane Satrapi’s *Persepolis*. One student raised his hand and asked, “What I really want to know is how can one person influence so many others?” This kind of deep thinking and questioning is vital in our world. Couldn't this question apply to a variety of situations in history to today?

As someone who strives to lead with compassion and care, this is the time to examine our curriculum and see how we can make it relevant to all learners regardless of where they are, who they are, or how much money they have. As Abdullahi (2010) pointed out, "In the twenty-first century, global educators deal with issues and problems caused by poverty, globalization, global terrorism, and human and ecological abuses" (p.24). There is no doubt that the last couple of years have been a challenge. We should continue educating children to be positive citizens and problem solvers worldwide. To help parents understand that good grades are great but being a good person is even better. As the IB points out in its mission, let us use our education curriculum to support our children "...to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right" (p. 3).

Significance of the Problem

There are many facets to this problem. We are interested in aligning the curriculum to be more inquiry, concepts, and skills-based. At the same time, we want an inclusive, engaging curriculum that allows students to become solutions focused on the problems we are facing in our world today. Wagner (2008) highlights this idea with his look at what he calls the "Global Achievement Gap," which is essentially the disconnect between what is taught in school and what students need to learn to succeed in our world today. These include critical thinking, communication, collaboration, curiosity, and adaptability. Wagner (2007) highlights the lack of real-world application in our current classrooms, and it is leading to the "gap" in student achievement:

These issues were never discussed in any of the classrooms I observed. Some teachers I talked to wanted to have such conversations with their students. However, they felt obligated to spend all available class time covering the content needed to ensure that the students would pass various standardized tests (p. xvi).

In this way, the promotion of inclusivity occurs because we are not necessarily teaching the content, instead, educators can focus on the concepts or skills. An example of this might be in a history class; traditionally, a U.S. history class may linearly align itself beginning with World War I. In a concept-based programme such as the IB- MYP, the teacher may begin with the concept of conflict. They might look at this concept through the lens of a Global Exploration of justice, peace, and conflict management or power and privilege. In the U.S. they could undoubtedly use World War I as the content that aligns with the concept; however, any country in the world could use the concept and Global Exploration to explore content that might be more pertinent or pressing to explore in their classrooms. At the same time, this allows students to analyse conflict. Instead of simply regurgitating and memorizing facts, they can look at the problem, figure out what happened, and then begin to connect to their own lives and the world around them. In turn, this may help them find real-world solutions to conflicts in our world today. A concept-based curriculum does not mean that there is no content; however, it means that the curriculum is no longer beholden to the content but instead driven by the concepts. A concept-based curriculum is certainly not a new idea. Piaget and Vygotsky (1936) related this idea directly to constructive learning theory, the idea that learning is an active process that students need to play their part (as cited in). It cannot be passive but rather must be what Miller (2012) refers to as “transformative” (p.12). The time is ripe for us to make a change in our curriculum. We can no longer use a content-based curriculum that does not serve the needs of the 21st-century learner. COVID-19 should serve as a time for educational reform.

Part II

Emergent Innovation

There is no doubt that technology has changed the face of education. There is no need for students to spend hours poring over the library card catalogue to find information about a

topic they want to research. Instead, today's students can find and access any information they want with the click of a mouse. The advent of memorizing facts and then repeating them for a quiz or test is only one way a student can showcase their knowledge. Wathall (2022), a concept-based educator states that,

An explicit instruction method is a teacher-centered approach that often adopts a cycle of explaining, modelling, scaffolding and practising. I facetiously call this the monkey see monkey do technique. This transmission method of teaching stifles a learner's ability to think independently, to be curious and creative (para. 4).

Therefore, technology can be essential in changing our curriculum and end goals. If, as educators, we know that students can access any information they are interested in, then it stands to reason that we have a responsibility to teach students the skills needed to evaluate sources. At the same time, ensure that the information they are reading is credible. In this day of "fake" news, now more than ever, we need to teach solid research skills (see figure 1). In the IB- MYP these skills are called the Approaches to Learning. The Research Cluster includes a section on media literacy that is relevant to students today.

VII. Media literacy skills	
How can students demonstrate media literacy?	Interacting with media to use and create ideas and information <ul style="list-style-type: none"> • Locate, organize, analyse, evaluate, synthesize and ethically use information from a variety of sources and media (including digital social media and online networks) • Demonstrate awareness of media interpretations of events and ideas (including digital social media) • Make informed choices about personal viewing experiences • Understand the impact of media representations and modes of presentation • Seek a range of perspectives from multiple and varied sources • Communicate information and ideas effectively to multiple audiences using a variety of media and formats • Compare, contrast and draw connections among (multi)media resources

Figure 1

If students can create their questions, determine their learning or even participate in guided-inquiry, we allow them the opportunity to become agents of their learning who feel empowered. In turn, they can feel the joy from investigating what matters to them.

Implementing Change

For a change to occur in curriculum and education today, we would need a drastic re-think of what is valued in education today. With the advent of standardized testing, we would need to move away from this kind of assessment and convince our stakeholders of the value of inquiry, concepts, and skills. Changing to an inquiry model can play a role in creating critical thinkers and problem solvers. At the same time helping to address inclusivity issues within the curriculum. Change in education is arduous and long since this idea of promoting inquiry over content is not new or novel, Taba (1932) stated,

The task of education, as understood at present, is to lead growing individuals to more and more intelligent, wide, well-organized, and rich forms of experience through guidance, through selection of subject matter, and by providing an environment which is stimulating to self-direction (as cited in Laanemets & Kalamees-Ruubel, 2013).

In Ontario, Canada, the Ministry of Education (2020) began using social-emotional learning skills in the teaching of mathematics. The idea is that students will “develop confidence, cope with challenges and think critically” (para. 3). Unfortunately, the current governmental administration found this method to be unacceptable and demanded that the curriculum return to “back to basics.” Back to Basics meant returning to how the curriculum was taught before with drills, facts, and memorization. Therefore, before we can convince the relevant stakeholders, politicians, teachers, administrators, and parents, we need more research and data to support the idea that this is a better way for student learning. We need data like Scruggs and Mastropieri (2009) who found that “when using inquiry-based learning in place of a textbook approach in two science units, high school special needs students yielded significantly higher achievement than their peers who used a textbook” (as cited in Caswell & LaBrie, p. 17, 2017).

Although implementing change is challenging as Patterson (2016) points out “Change has long been the most feared aspect of education. Regardless of its inevitability, each time it’s met with the same disdain and hesitation as the last” (para.4). It is not entirely impossible. With the advent of data-informed decision-making, there is undoubtedly room to start the conversation for change within the curriculum. According to the IBO “there were over 7,500 programmes being offered worldwide, across over 5,500 schools in 160 countries” (para. 1). There has also been a growth of schools by 33% since 2016. Since the IB offers an inquiry, concepts, and skills-based programme, it does provide some hope.

Number of IB programmes offered in different countries

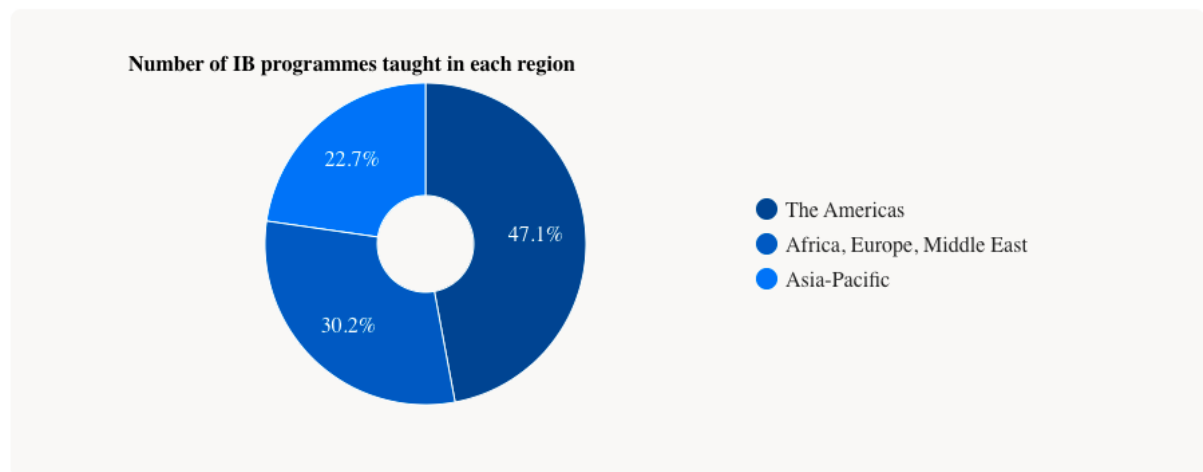


Figure 2

Another change that would be an easy fix would be to rid the world of standardized testing. High-stakes testing has certainly proven to be detrimental to students' emotional health and well-being. Minarechová's research (2012) showed that tests were being used to hold schools accountable. Unfortunately, in doing so, there were many problems for students that negatively manifested, such as "...stress and tension in students, teachers' preferences for "better" students, undermining of student self-esteem and in some cases even student fear of failure and the associated consequences" (p. 10).

If COVID-19 has taught us anything, it is that we do not need end-of-the-year exams to determine a child's future or measure their success as a human being. The IB and IGSCE cancelled exams in 2020 and then again in 2022 in China. Kumari (2020) the Director of the IB stated, "We felt reassured that universities already have a deep understanding of our rigorous programs and know how well we prepare our students to continue their education at those institutions" (para. 15). This statement only serves to exemplify why there is no need for high stakes testing. Since we know that the IB's foundation is built on inquiry, concepts and skills, it only serves to reason that this framework is enough for students to succeed as they move forward in our world. However, it does not entirely solve the idea of equity in education. It simply allows for a more inclusive education curriculum that could be relevant and accessible to all. Unfortunately, the IBO is expensive, again highlighting inequity in education. Therefore, Ministries of Education would have to model themselves on the IBO and create their versions of inquiry, concepts and skills-based learning. Not every child has a computer or access to technology, so while it can spend its time connecting us, it can also tear us apart. Simmon's (2020) describes how equity has been highlighted even more during the pandemic, "Some districts have provided children tablets, but there are still far too many students without the necessary tools for distance learning, including reliable internet service" (para.5). So, teaching media- research skills to children without a computer becomes a challenge. At the same time; however, we can still teach research skills. These are still of utmost importance.

In theory, teachers' professional development can be dedicated to learning how to institute inquiry into their classrooms. Again, with the advent of technology, courses and professional development can be acquired online. Money for teacher training would have to become a priority. Andrini (2016) states that "In carrying out their duties professionally, teachers need a steady and complete insight about teaching and learning activities. A teacher

must have an overall picture of how the process of teaching and learning that occurs and what steps are necessary so that teaching tasks can be performed well. (p. 4).

To implement such change would require a long-term strategic plan. With the onset of more and more countries becoming nationalistic, it may be harder to get an agreement between countries on what is best for student learning. The Global Risk Report (2022) highlighted that "The COVID-19 pandemic exposed the shortcomings of global cooperation" (p. 21). The report also stated that there is a need for global efforts to be made because the problems and challenges highlighted, such as climate change, rapid digitalization, the space race, migration, etc., cannot be solved by national governments alone. Now more than ever, we need to stay connected. Now more than ever, we need to help our students to become critical thinkers who can help to solve the issues that our world is facing today.

Part III

The long-term effects of creating an inclusive curriculum based on inquiry, concepts, and skills can help address some of the problems that the Global Education Monitoring Report highlights. If we agree that disadvantaged groups are kept out or pushed out of education systems through more or less subtle decisions leading to exclusion from curricula, irrelevant learning objectives, stereotyping in textbooks, discrimination in resource allocation and assessments, tolerance of violence and neglect of needs (p.10).

Then we can certainly solve some of these problems with a change in a more inclusive curriculum. Let us refer to the mission of the IBO (2020) again, which highlights that "others with their differences can also be right" (para. 2). Following a framework that is based on inquiry allows for the flexibility that is required in our ever-changing and evolving world. The IB- MYP does not recommend the use of textbooks for the very reason that they are usually outdated and often regional in their publications. With inquiry, teachers can also ensure that the learning objectives are relevant and meaningful to the student body. Rather

than teaching the content, teachers can teach the concepts and skills that a students will need as they progress through school. Educators can create relevant and authentic material that children care about and, in turn, inspire the love of learning that we wish to instill in our students. McTighe & Silver (2020) point out, "The rapid changes and unpredictability of the modern world call for learners who will be able to transfer their learning."

According to the Global Monitoring Education Report (2020), we live in a world that struggles to be inclusive. Everything begins with education. It is time to create a curriculum that will address the diverse needs of each learner. A curriculum that is relevant to the changing face of our world today. That does not rely on tradition but can move forward open-minded and positive for every student, no matter their background. This could start with an inquiry, concept and skills-driven curriculum. The IB- MYP programme is one such curriculum that genuinely believes in this philosophy. Whether we adopt the MYP or a similar type of curriculum, it is undeniable that the aim is to create students who are active learners and internationally minded young people who can empathize with others and pursue lives of purpose and meaning. The programme empowers students to inquire into a wide range of issues and ideas of significance locally, nationally, and globally. The result is young people who are creative, critical, and reflective thinkers (para 2).

This description embodies the world citizens we want to see facing the challenges of the 21st century. It is time to equip our students with the skills that are needed. Therefore, there is no time like the present to begin this journey toward curriculum change.

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