

Rethinking the Teaching of Social, Emotional, Transversal, and Other Life Skills:

21st Century Approaches for 21st Century Competencies

A White Paper

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Abstract

Today, learners throughout the world need skills to face the issues of the 21st century. A rapidly changing job market, pandemics, and climate change, among other challenges, require learners to master social, emotional, and citizenship skills, literacy in media and technology, and the ability for lifelong learning. Teaching these 21st-century skills requires interactive teaching strategies and holistic approaches to learning. However, many education systems are not set up for meeting this challenge; the focus has been on didactic teaching for examinable subjects. While there are many innovative approaches and interventions, and some emerging technologies that are designed to accelerate learning, these exist on a relatively small scale and work within the existing structures. This paper proposes a way forward that prioritizes teacher well-being, learner-centered approaches, and cross-curricular integration and discusses a role for education technology. In this way, education sectors will be fit for the purpose of preparing learners to survive and thrive in the 21st century.

Background and Rationale

In the Organization for Economic Cooperation and Development (OECD) report, *The Future of Education and Skills 2030*, the authors contend that “as trends such as globalization and advances in artificial intelligence change the demands of the labor market and the skills needed for workers to succeed, people need to rely even more on their uniquely (so far) human capacity for creativity, responsibility and the ability to ‘learn to learn’ throughout their life.” The authors add that “social and emotional skills can be equally—and in some cases even more—as important as cognitive skills in becoming a responsible citizen.”¹ In other words, “in a world of constant change, the capacity to acquire new skills and knowledge rapidly and continually is critical to success.”² For example, COVID-19 has demonstrated the importance of digital skills, health literacy, and the ability to be a lifelong learner as each one of us had figure out how to cope and to adapt to unprecedented circumstances.³



Multilateral education agencies such as UNICEF and UNESCO have traditionally referred to these skills as life skills (and more recently as transversal skills), while other education partners refer to social and emotional learning and soft skills.⁴ These groupings generally include skills such as communication, empathy, coping, critical thinking, and problem-solving.⁵ But such skills also include global awareness, financial literacy, media literacy, and environmental literacy, among others.⁶ Despite the different frameworks and names, there is growing consensus that a comprehensive and holistic approach to education is needed for young people to develop these skills in a connected and meaningful way to be prepared for life outside of class.⁷

Young people need these competencies to survive and thrive in the modern world. The International Bureau of Education (IBE) refers to this concept through the term 21st-century skills. IBE defines 21st-century skills as “an overarching concept for the knowledge, skills and attitudes citizens need to be able to fully participate in and contribute to the knowledge society.”⁸ In a report by the Global Partnership for Education, the authors state that 21st-century skills “have become an increasing area of focus in the international education discourse, with more and more countries across the globe striving to ensure that their education systems go beyond the cognitive domains such as reading and mathematics and equip children and young people with these skills.”⁹

According to the World Bank, these 21st-century skills need to be built, not just taught.¹⁰ The process of skill-building requires learner-centered pedagogies that promote learning by doing in contrast to didactic lectures on the one hand, and assessment of a learner’s attitudes, skills, and behaviors in contrast to assessment of knowledge only on the other.¹¹ Most education systems are designed to teach legacy subjects (such as math, literature, science, or social studies) and to measure what learners know. These systems are not principally designed to teach learners competencies for health and pro-social behaviors.¹² Developing these skills require space to and guidance to practice these skills and then tools to measure that these skills are applied in the learner’s life. The status quo is focused on discussing and measuring knowledge. The axiom from health promotion is relevant: knowledge is necessary, but not sufficient, for behavior change.¹³

The approach presented here is relevant to all contexts in the world. Though the need is most acute in lower resource environments as “evidence suggests poor skills attainment among youth, but particularly so among those in low-income countries where the share of youth on track in skills acquisition is lowest”¹⁴. In contexts where education systems have more resources there will be greater opportunities to employ technological solutions, but high technology is a not a requirement for the approach. Also, this approach is applicable to all ages of learners, but the need is most acute for adolescents and young people who are discovering their own way through school and life.

Gap Analysis



According to research done by UNESCO and the Brookings Institution, there are challenges to the teaching and learning of social skills because “there are no roadmaps which identify which behavioral competencies or levels of performance should be seen as reasonable expectations.”¹⁵ Traditionally, teachers are prepared for the cognitive-focused legacy subjects but not the social and emotional skills. The authors argue that “the capacity to design assessments that reflect student transversal competencies has been regarded as a major hurdle to integration of a 21st-century skills agenda in the classroom.”¹⁶

In another study, teachers of blended and online skills programs reported that teaching skills requires more time than is being allocated, and that teachers need professional and administrative support to succeed.¹⁷ A lesson learned by World Bank researchers was to “adapt life skills programs for local lives,” which “may entail translating the curriculum into local languages, changing names or situations in role plays,” among other measures.¹⁸

Furthermore, in a study focusing on gender differences in children’s skills growth trajectories, the authors observed that boys demonstrate more individual differences in social skills than girls¹⁹. In another study, girl learners outpaced boys in transferable skills.²⁰ These findings suggest that there is a direct need for personalized learning and user-generated content to bridge the gender gap.

Given the global priority to increase the skills of adolescents and young people, educators and workforce development professionals need guidance, support, and tools to overcome challenges and prepare their learners for the future. Despite the importance of these skills, implementation is lacking. Researchers found that US secondary students reported that they did not feel prepared for life after school.²¹ We offer a problem analysis on the current state of 21st-century skills instruction globally, from primary to post-secondary levels of schooling.

1. Teaching strategies need to be interactive and learner-centered.
 - a. Didactic instruction needs to be replaced by interactive and learner-centered methods for healthy attitudes and behaviors to be developed.²²
 - b. Instructional content has to be realistic to learners so that they can relate the skills learned in class to their life outside of class.²³
 - c. Instructional time needs to be spent on thinking about how individuals learn (i.e., metacognition), so that learners can become more effective at growing, adapting, and employing 21st-century skills across their lifespans.²⁴
2. Teachers need training, guidance, and administrative support for their own personal development of social, emotional, and other life skills, as well as professional development for teaching those skills.
 - a. Teachers need training on the approaches for 21st-century skills, support for using interactive methods for teaching these skills, and instruction on how to adapt teaching strategies appropriate to the cultural context of their learners.²⁵
 - b. Teachers could also benefit from support to develop their own health and well-being, especially as they work through the new demands and changes for developing 21st-century skills.²⁶ Research suggests that the teacher’s own SEL



skills are correlated with the SEL skills of their learners and that supporting teachers to reflect on their own practice is a powerful tool for developing teacher competencies.²⁷

3. Time is a barrier to effective skills instruction (requiring new ways of organizing the school day), with 21st-century skills as integral to the academic program.²⁸
 - a. The curriculum is crowded, and administrators emphasize examinable subjects, particularly in the upper grades.²⁹
 - b. Skills are taught independent of other content and therefore compete with legacy subjects, e.g., math, science, or social studies, whereas integration can be effective, especially when coupled with explicit skills instruction.³⁰
 - c. A supportive climate can accelerate social and emotional learning.³¹
 - d. Project-based learning is an efficient method for building interdisciplinary skills while working on a practical and relevant topic.³²
4. Assessment of learning needs to account for not only knowledge, but also attitudes, skills, and behaviors.³³
 - a. A major focus of assessment is on knowledge, e.g., quizzes and tests that examine what a learner remembers, not how they behave.³⁴
 - b. Skills are measured using several methods that are not often comparable, which makes it difficult to discover promising practices.³⁵
 - c. Skills are occasionally observed by teachers within the context of a class-based performance (drama or role-play) that may present an artificial and unrelatable setting, while the activity also may be dominated by the most vocal learners.³⁶
 - d. In addition to objective measures of well-being, subjective well-being measures (such as a learner's own feelings and experiences assessed from their own perspective) may also be helpful. A focus on subjective measures can affirm that a learner's own feelings are important as a principle.³⁷
 - e. Co-developing learning targets with learners and agreeing how these will be assessed is a way to develop goal-setting and monitoring skills and encourages self-reflection and self-assessment.³⁸
5. Learners should be offered many paths to skill development that offer social connections and individual reflection, as well as just-in-time learning opportunities.
 - a. Social learning opportunities, e.g., working with other learners to create content and case examples, are opportunities to be creative, apply transversal skills, and learn from the examples of other learners. There is evidence to suggest that learners are more engaged in lessons when they generate the content themselves about the issues that affect them most.³⁹
 - b. Life skills are often taught from the same base, or starting point, to all learners, but just as the emotional intelligence and context for behavior vary with each learner, so too should the pathways for learning vary, as well, starting at different points, proceeding at different pace, and talking different routes to achieve similar objectives⁴⁰
 - c. Skills are often taught in linear and short-term interventions, rather than in a sustained ongoing program.⁴¹



- d. Providing choices to learners can bolster intrinsic motivation and effort for better learning outcomes.⁴²
 - e. Just-in-time vs. just-in-case learning: the former is focused on providing lessons at the time when they are most likely to be applied, e.g., a lesson on communication and cooperation when learners are completing an assignment in teams, or a lesson on resilience when a learner is struggling with an assignment. In this way, the learning of skills and competencies is proximal in time when they need to apply them in their life. This is in contrast to traditional teaching where content and skills are taught with the belief that they will be useful in the future and/or for an upcoming test, which simply encourages rote learning and not applied learning as in the just-in-time approach.
6. In the upper years of schooling, learning becomes more siloed and content-specific. But secondary students need these skills for college and career readiness.⁴³
 - a. Individual learners need a way to integrate learning from different courses, subjects, and time periods so that the content is meaningful and useful to them.⁴⁴
 - b. Teachers need a way to get feedback on the class climate so that they can take steps to create a positive learning environment.⁴⁵

These challenges have endured for decades at almost every level of school in almost every local context, but new opportunities are emerging as the sector changes. Skills for health, well-being, and lifelong learning are increasingly recognized as important. Education technology (ed-tech) has become more sophisticated, accessible, and commonplace. In addition, COVID-19 has accelerated the use and acceptance of ed-tech and has underscored the importance of health and well-being, particularly social and emotional health.⁴⁶ The time is right to rethink social, emotional, transversal, and other life skills instruction to develop learners' competencies for the 21st century.

Towards a New Approach

This paper aims to build on both extant research and our professional experiences to propose a new approach to teaching skills, one that addresses each of the gaps above. While there are many different learning technologies and many organizations promoting SEL and other skills, most of these work within the confines of the current system. Our proposal calls for a fundamental rethinking of how we approach teaching and learning, particularly in secondary and post-secondary schools. Our ideas draw from low technology practices, existing applications of education technology, as well as the potential of future technologies. The aim is to use 21st century methods for 21st-century skills to promote well-being and lifelong learning with the goal of healthy and productive lives.

We envision an approach that:

- Supports teacher skill development in both teaching 21st-century skills and furthering their own well-being.



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- Provides teachers with the tools, technology, and administrative supports for learner-centered and interactive teaching.
- Provides teachers with real-time insights about the class climate and the progress of individual learners.
- Offers teachers four-dimensional diagnostic tools, that is tools to assess attitudes, skills, and behaviors in addition to knowledge.
- Offers learners a personalized path for their development and support, such as a learning navigator that can offer different routes to learning objectives.
- Aggregates learner-supplied content to make lessons as relevant to them as possible. We envision learners working together to provide settings and situations for the lessons that are locally relevant and age appropriate, not personally identifiable data.
- Integrates skills into subjects across the curriculum.

We recognize that there is a growing consensus that learner-centered approaches are central to skills development, as they allow for both flexibility and personalized learning.⁴⁷ But these teaching strategies can be time-consuming and trying on teachers if teachers are not adequately prepared and supported by administration. We contend that to deliver learner-centered lessons, we need to start with the teachers and other school staff to create a positive school and classroom climate.⁴⁸ We need to appreciate and support teachers' own social and emotional well-being and skills development. Therefore, the starting point is to support educators to be healthy themselves—and then skilled at learner-centered teaching strategies.

Learners respond positively to content that is relatable, where the names, settings, challenges, and situations appear realistic to them.⁴⁹ The contexts in which young people live are rapidly changing, so producing content in traditional publisher-driven ways leads to dated output. We have learned that there is value when learners collaborate and generate their own content that is relevant to the class.⁵⁰ This process can include exploring immediate concerns such as individual emotions as well as community concerns such as gender equity and social justice, which can be an entrée for more complex topics, such as global citizenship education and education for sustainable development.⁵¹ In our proposed approach, local content can populate activity and lesson templates for each learning objective. Teachers can facilitate a discussion with learners about their concerns and interests as well as the likely situations that they experience to develop content, such as anchoring vignettes that are relevant and reflect local realities.

Although class role-plays can be useful, they can also be stilted if the learners are not motivated to participate fully and reflectively in the moment.⁵² The role-play can be obscured by public performance, where learners perform their singular role rather than exploring all aspects of the scenario and internalizing the learning.⁵³ Learners need to connect in many ways, not just through the construct of a publicly performed lesson. Ed-tech may bring additional opportunities for an individual to try different scenarios on their own, such as through augmented or virtual reality.⁵⁴

The school day is crowded, new content cannot supplant the legacy subjects, and teachers are under tremendous pressure to 'cover' set content. So, we must find a way to make the school day



more efficient and give teachers relief so that more learning can happen in the same amount of time. Thus, we are re-thinking education. There is research to suggest that good SEL skills contribute to better learning outcomes across all subjects.⁵⁵ This finding is supported by the teacher's own perceptions.⁵⁶ Skills “can be woven into the fabric of a school’s curriculum”⁵⁷ and can foster a growth mindset and develop resiliency to approach any learning task.⁵⁸ SEL skills can also improve classroom management.⁵⁹ Rather than teaching skills alongside legacy subjects (vertical integration), we suggest infusing these skills across the curriculum, through horizontal integration. These transversal skills are not independent of the legacy subjects. Teachers can work with learners think meta-cognitively, i.e., reflecting on their own thinking, and develop strategies that can support their learning. For example, learners can develop resiliency when studying math. Similarly, learners can develop collaboration skills while working on group science projects and develop goal-setting skills for other academic projects, which can offer just-in-time learning opportunities.⁶⁰

We appreciate that every learner is unique with their own pathways for learning. This is true for all subjects, but it is most distinct for social and emotional skills.⁶¹ There are technologies that support individual learning for the legacy subjects. There may be an opportunity to explore ed-tech for 21st-century skills to offer comprehensive personalized learning opportunities. Authors of a recent systematic review state that personalized learning has existed for hundreds of years, such as with apprenticeships, but new approaches have accelerated discussion and research around personalized learning. They conclude that although personalized learning has the potential to increase learner engagement and improve outcomes, this potential has not yet been fully realized, and it is achievable.⁶² And, technology-led initiatives have had mixed results, especially when the human and social dimension of learning is downplayed⁶³. In our re-thinking, technology can play an important role, but at its core, teachers and learners are driving the decisions, not the technology.

Next, the approach has the possibility to support assessment beyond knowledge. According to one report, policymakers in the United States have questioned whether the current design of assessment systems focuses too much on measuring students’ ability to recall discrete facts using multiple-choice tests at the cost of not adequately measuring a student’s ability to engage in and complete complex thinking and problem-solving tasks. The result is a widening gap between the knowledge and skills students are acquiring in schools and the knowledge and skills needed to succeed in the increasingly global, technology-infused, 21st-century workplace.⁶⁴ A study conducted by UNESCO in the Asia-Pacific region on the assessment of transversal competencies found that “the majority of the tools were not designed to capture traversal competencies directly. More commonly, the tasks or items were embedded in conventional tests.”⁶⁵ Conventional tests focus on knowledge and are not sufficient for measuring skills and competencies.

Teachers can benefit from real-time feedback as their learners navigate their skills journey. These data can be comprehensive and timely, offering teachers insights into individual learners so that teachers may provide targeted support and have a snapshot of the class climate. Teachers should “work with students to set goals in areas where they may need improvement and help



chart their progress, giving them a measurable way to show their achievement and feel a sense of accomplishment.”⁶⁶ Recent research suggests that data-informed decision-making is critical for building the capacity of educators and school systems to develop skills and social and emotional learning.⁶⁷ We are aware of the concerns that parents, teachers, and learners may have with the use of their data. There must be safeguards in place to protect privacy and keep data secure so that it is not stolen or used by commercial entities.

The Role of Technology

Our approach has both high-tech and low-tech features. New technologies may enable learners to learn more responsively, precisely, efficiently, and broadly. However, skill development can also be achieved in a low-tech setting. For example, skill level grouping is a technique of placing students at the right level. Teachers can tailor instructions and assignments to students’ ability levels to help students improve learning outcomes.

According to a new report by UNICEF, “digital experiences can have a significant negative impact on children, exposing them to risks or failing to nurture them adequately. Nevertheless, digital experiences also potentially yield enormous benefits for children, enabling them to learn, to create, to develop friendships and to build worlds.”⁶⁸

The potential to leverage technology such as virtual reality, artificial intelligence, gamification, and other methods may offer new ways to engage learners in skill-building toward well-being.⁶⁹ Although computer-assisted learning through simulation and gamification is relatively new, evidence suggests it can be effectively applied to skills development.⁷⁰

Digital play experiences and environments can promote social engagement, exploration, and self-directed learning.⁷¹ The authors of the UNICEF report find that digital play experiences that are designed for agency and autonomy can support and benefit well-being, such as by building confidence and decision-making skills.⁷² At the same time, the authors recognize that digital play has limits, and if poorly designed it can lead to isolation and boredom. They conclude that digital play experiences can be a transformative approach to promoting well-being under the right conditions. They provide a well-being framework that can provide guidance in applying technology to the teaching and learning of 21st-century skills. This includes ensuring safety, security, and privacy; promoting diversity, equity, and inclusion; fostering social connections; and developing creativity, empowerment, and self-actualization.⁷³

Education technology is not a panacea, but it may offer new opportunities to teach and learn 21st-century competencies. We must keep an open-mind to its potential, while also learning from the decades of supply-driven efforts that have not delivered transformation in the sector as planned⁷⁴.

Conclusion



Our vision is to create a competency-based approach to learning in which 21st-century skills are integrated horizontally across the curriculum and learners and educators are potentially aided by advanced education technology. Many of the ideas presented in this paper have been implemented in part by different education stakeholders, public and private. However, in our research and experience, we have not seen all of the features that we describe coming together in one learning environment.

The approach proposed in this paper is ambitious and forward-looking. There is a risk that this approach may not work or may be misused, or simply not used at all because of cost and competition between other learning approaches and platforms. However, the potential benefits are clear: teachers can build greater numbers of skills in the same amount of time, teach more effectively across all subjects, be more relevant, and build lifelong competencies.⁷⁵ The next step is to test ideas and aspects of this approach to find sustainable and cost-effective solutions.

In this unique time, COVID-19 has accelerated trends such as increased use of ed-tech, a greater focus on social and emotional learning, and a greater appreciation for developing competencies for lifelong learning. The education model currently in use is based on nineteenth century thinking and is not fit for preparing learners for the demands of the 21st century (see Sir Ken Robinson's TED talk, for example⁷⁶).

The time to rethink education is now. Education can transform lives, so let's transform education.



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