

# Education and international competitiveness

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## Abstract

Educational reforms are often based on the assumption that education, particularly in STEM areas, is the key to international competitiveness. This is valid to some degree, however, there are many other aspects that contribute to international competitiveness. Additionally, international competitiveness in an age of globalisation is considered by some to be a dated, neoliberal dream reminiscent of Cold War ideologies. Standardised assessment, particularly at the international level, is used to measure competitiveness and rank countries accordingly. Although assessment data at the international level can be useful for countries, particularly when it comes to educational reform and policy decisions, it is arguable that the 'hard' skills measured by these types of assessments are not necessarily the skills that will be useful and valuable to today's (and tomorrow's) learners.

**Keywords:** *secondary education, international competitiveness, assessment, benchmarking*



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## International competitiveness

International competitiveness is defined as “the set of institutions, policies, and factors that determine the level of productivity of a country” (World Economic Forum 2014, p. 4). The level of productivity of a country in turn predicts levels of prosperity and economic growth of that nation (World Economic Forum, 2014). Since the 1983 publication of *A Nation At Risk*, wherein the U.S. cautioned, “our once unchallenged pre-eminence in commerce, industry, science, and technological innovation is being overtaken by competitors throughout the world,” and called for educational reforms in the name of international competitiveness, developed nations across the globe have adopted similar neo-liberal foci in education (National Commission on Excellence in Education, 1983, p. 1). There is much debate as to whether education is central to global competitiveness and the degree of importance of international assessment and benchmarking. Additionally, there is debate as to whether global competitiveness should be emphasised as a key purpose of education at the secondary level.

## Education as a predictor?

The World Economic Forum (2014) introduces the current global competitiveness rankings by stating that although education at all levels is important to economic stability and growth (health and primary education and higher education and training are 2 of the 12 pillars of competitiveness, as defined by the World Economic Forum), it does not stand alone; the organisation identifies 10 other major factors such as

institutions, infrastructure, market size, financial market development, business sophistication, and innovation, which all greatly affect international competitiveness. Some would argue international assessment is not only difficult to interpret, due to sampling problems and enormous differences across countries in poverty rates and societal values and objectives, but that it does not accurately predict a country's ability to compete in the global economy (Rotberg, 2006). In the U.S., technical jobs are not often outsourced to countries which typically score highly on international assessments such as Austria, France, Sweden, Switzerland and the United Kingdom (the top ranking 'competitors,' so to speak), but to countries such as India and China where workers in technical fields are willing to provide the same services for far lower wages (Rotberg, 2006). Mathis (2011) proposes that test performance is not linked to global competitiveness. Educational reforms often stress the need for high performance in STEM (science, technology, engineering and math) subjects in order to compete internationally. Mathis (2011) suggests this assumption is not justified by economics or by workforce needs. The link between education and international competitiveness is purely associational, not necessarily demonstrating a cause-and-effect relationship. Furthermore, the relationship between education and the economy is vastly different across the globe. Developing nations, for example, must invest significantly in emergent sectors of technology, engineering, and vocational skills development, whereas developed countries like the U.S. and New Zealand are more focused on innovation and invention (Mathis, 2011).

International assessments, for all their shortcomings, do provide a clear standard for measurement as well as comprehensive data for the purposes of educational policy reform. Phillips (2014) emphasises the importance of international benchmarking to global competitiveness, especially in the United States where educational policy and curriculum is different in each state and there is the issue of “50 states going in 50 different directions” (p. 16). Phillips (2014) supports standardised international assessment such as TIMSS, PIRLS and PISA for the sake of maintaining high and consistent expectations across the board in the U.S. for the purposes of unified national progress. He draws on the support of organisation leaders such as Andreas Schleicher, director of the OECD’s Programme for International Student Assessment (PISA), who stated in 2006, “It is only through such benchmarking that countries can understand relative strengths and weaknesses of their education system and identify best practices and ways forward. The world is indifferent to tradition and past reputations, unforgiving of frailty and ignorant of custom or practice. Success will go to those individuals and countries which are swift to adapt, slow to complain, and open to change” (qtd. in Phillips, 2014, p. 1).

In an open letter to Schleicher, Heinz-Dieter Meyer criticises PISA for “emphasizing a narrow range of measurable aspects of education,” and therefore taking “attention away from the less measurable or immeasurable educational objectives” (PISA, 2014, p. 1). Schleicher counters by explaining that not only does PISA measure student performance, it gauges social and emotional dimensions, student attitudes and motivations, equity issues, and parental support, areas that are reviewed every three years by participating countries. Meyer raises the point that social inequalities have an undeniable effect on the widening educational gap between the rich and the poor, and that educational reforms based on performance-based assessments like PISA are unlikely to change this. Schleicher retorts that analyses of PISA data suggest that “poverty is not a destiny” and the impact of socio-economic background on learning outcomes varies widely across countries and policy contexts (PISA, 2014, p. 2).

### Competitiveness as an aim of education?

Some researchers on this front maintain that global competitiveness should not be a primary concern or purpose of education; instead, education should emphasise global perspectives and competence, i.e., working in new, collaborative and effective ways in an era of increased globalisation (Zhao, 2015). Increased globalisation, or integration of world economies involving the movement of goods, people and money across borders, effectively weakens the ties between individuals and their ‘home’ nations (Zhao, 2007). Ensuring a New Zealand student gets an excellent education does not necessarily mean that student will apply their skills toward the nation’s enterprises; the high level of sophistication and accessibility of telecommunication technologies, as well as increased global collaboration, mean the student could be employed by a Chinese, American or Indian company instead. Rather than holding an adversarial view of other countries, echoing a Cold War mindset, and striving to achieve superiority over one another, Zhao (2007) suggests nations should be rethinking education and human capital in a way that is reflective of rapid globalisation trends.

### Measuring what is valuable

Research suggests that the types of skills measured by standardised assessment are not necessarily the skills that will be valuable to first world societies in the foreseeable future (Zhao, 2015). Zhao (2015) stresses the importance of nurturing diverse talents and encouraging creativity, entrepreneurship and innovation, rather than homogenising students. That is not to say, let students do whatever they want; Zhao (2007) argues that schools should incorporate a broad range of subjects and cater to and nurture a diverse scope of talents in a systematic and disciplined way. Mathis (2011) argues in a similar vein that standardisation effectively narrows the curriculum and serves neither the student nor society. The functions of education required for the twenty-first century are far broader and include soft skills such as creative thinking, evaluation of information, listening and negotiating skills, moral and ethical decision making, and effectiveness in culturally diverse settings (Mathis, 2011).

In order to remain ‘competitive,’ Zhao (2015) suggests countries must strive to stand out rather than fit in. Zhao (2015) warns that New Zealand is in the process of initiating educational reforms similar to those in the U.S. which value testing over teaching and limit education to a narrow, homogenised scope. These reforms can limit innovation and fail to provide adequate support for children who need extra help. Gone are the days when standardised knowledge and skills were of high value in the workforce, now that so many jobs have become automated or have been outsourced to countries with an abundance of cheap labour. It was once easier to predict the skills and knowledge that beget ‘successful’ individuals when countries were more isolated from one other and the pace of change was slow; however, it has become impossible to prescribe what kinds of skills and knowledge will be necessary for the next generation. The modern globalised world requires creative and entrepreneurial thinkers to create new jobs and opportunities (Zhao, 2015).

### Conclusion

Although it is important, education is not the sole predictor of economic competitiveness. Educational reforms are often based on the assumption that high performance in STEM areas is critical in order to compete internationally; however, evidence to support this claim is lacking. In fact, many jobs in these areas are outsourced to other countries not because those countries rank highly in terms of competitiveness, but because they have a large population of workers who are unable to demand higher wages. Furthermore, some would argue global competitiveness should not be a primary concern or purpose of education. In an age of increased globalisation, there is value in teaching global perspectives, competence and collaboration—countries working together across borders rather than striving for superiority over one another.

Although international assessment can be helpful in that it provides a way of reviewing the relative strengths and weaknesses of education systems, the types of skills measured by standardised assessment are not necessarily the skills that will be valuable for the next generation, which are becoming almost impossible to predict.

For this reason, moving forward it will be important to teach soft skills such as critical thinking, creativity, and competence in culturally diverse settings, as well as nurture a broad range of

talents. The next generation will need to create new jobs and opportunities rather than fill them; such entrepreneurial ventures will require creative and innovative minds that strive to stand out rather than fit in. It is the charge of educators to support young people to skilfully and confidently navigate the rapidly changing twenty-first century, and that requires identifying and privileging knowledge and skills that are truly valuable, regardless of the implications for global competitiveness rankings.

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