



RESEARCH ARTICLE Section: *Literature, Linguistics & Criticism*

Review of “The 21st Century Skills in Curriculum and Instruction.”

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ABSTRACT

The purpose of this review is to explore the book titled “The 21st Century Skills: Evidence of issues in definition, demand & delivery for development contexts” authored by Joynes, Rossignoli, and Amonoo-Kuofi, highlighting its emphasis on 21st-century skills and challenges, critical thinking, communication, collaboration, and creativity. The book offers a comprehensive overview of 21st-century skills from various disciplines, making it valuable for scholars, graduate students, educators, and practitioners in the field. It also guides decision-making and includes suggestions for future research, making it beneficial for researchers. By examining how such a tool can be used for teacher feedback, reflective practice, and continuous improvement, the hope is to pave the way toward enhanced 21st-century teacher skills and, in turn, 21st-century learners.

KEYWORDS: Century Skills, 21st-century, Education, Future research.

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Introduction

There is no universally accepted definition of ‘21st-century skills,’ and various skills are classified under this term. Due to the ambiguity surrounding the precise nature of 21st-century Skills, the literature also fails to clearly distinguish them from related skill sets, such as soft skills. Analysts often employ the term ‘21st-century skills’ in a broad sense, encompassing a wide array of skills or skill subcategories. The examined literature shows that no clear and unique definition of ‘21st Century Skills’ is provided and adopted internationally. Multiple skills are attributed and listed as 21st Century Skills and, given the lack of clarity on what 21st Century Skills are, the literature is also not conclusive on the difference between 21st Century Skills and other related skills (e.g. soft skills). Indeed, analysts generally use the term ‘21st Century Skills’ as a broadly encompassing concept referring to multiple skills or subcategories of skills.

For instance, according to (Joynes & Rossignoli, 2019), Voogt and Roblin (2010, p. 16) describe “21st Century Skills” as the knowledge, skills, and dispositions needed for citizens to contribute to the knowledge society. In contrast, Scott (2015, p. 8) defines them as the knowledge, skills, and attitudes necessary for competitiveness in the 21st-century workforce, participation in a diverse society, use of new technologies, and adaptation to rapidly changing workplaces.

The emphasis on incorporating 21st-century skills into education came about because the changes in the world in general and in the workplace necessitated different skills from those we teach children in schools. The emphasis on incorporating 21st-century skills into education arose due to global changes and evolving workplace demands, which require skills different from those traditionally taught in schools.

As stated by (Jerald, 2009) Although it is challenging to predict what abilities will be crucial in thirty years, it is possible to look at current trends that have changed the demands of work and life in the recent past and will continue to do so in the present. Globalization, automation, changes in the workplace, and laws promoting individual accountability are the most significant.

In general, the most significant factors driving the need for 21st-century skills appear to be economic and sociological shifts strongly tied to recent technological advancements -and, subsequently, changes in the nature of occupations and the family environment. (Voogt & Roblin, 2010)

Overview of the Book

With 75 pages divided into 4 meticulously crafted chapters, the book offers a detailed exploration of the 21st-century skills in curriculum and instruction. The first chapter, “What are 21st Century Skills? Challenges in definition” provides an overview of the book and helps readers understand the ways in which the broad range of skills, attributes, and competencies included under ‘21st Century Skills’ are also categorized and grouped by commentators and analysts under a variety of terminologies, including ‘life skills’, ‘soft skills’, ‘transitional skills’, the ‘4Cs’ and others.

Within this, the study seeks to identify the range of key priorities that these different terminologies reveal. There is also a summary analysis of the unique position of ICT-driven technical skills, knowledge, and practices within definitions and conceptions of 21st Century Skills. The section concludes by highlighting the general areas of consensus across the broad range of frameworks associated with 21st Century Skills, which exist despite the diversity of terminologies used by commentators across the field.

The second chapter discusses the ‘4Cs’: Critical thinking, Communication, Collaboration and Creativity. The ‘Framework for 21st Century Learning’ proposed by the US-based Partnership for 21st Century Learning highlights the ‘4Cs’ (Critical thinking, Communication, Collaboration and Creativity), a range of attributes which it proposes should be developed within the context of teaching core subject areas.

The '4Cs' model is based on the assertion that 21st century challenges will demand a broad set of skills emphasizing the individual's capabilities in core subject skills, social and cross-cultural skills, proficiency in languages, and an understanding of the economic and political forces that affect societies. In support of P21's '4Cs' model for the categorization of 21st Century Skills, Voogt and Roblin (2010, 2012) examined five 21st Century Skills frameworks—Partnership for 21st Century Learning. Assessment and Teaching of 21st Century Skills (ATC21S); National Educational Technology Standards (NETS/ISTE); and National Assessment of Educational Progress (NAEP). They note that 'collaboration' and 'communication' are mentioned in all the analyzed frameworks, while 'creativity' and 'critical thinking' are included in the majority of the frameworks.

In addition, all the frameworks analyzed by Voogt and Roblin (2010, 2012) also mentioned the importance of a number of skills that cut across these four categories—ICT literacy, social and/or cultural skills, and citizenship. In reviewing several 21st Century Skills frameworks, Voogt and Roblin (2010) point out that all examined frameworks highlight the intersection between ICT and 21st Century Skills. Firstly, they offer a comparison between the various elements that ICT and information literacy encompass through these frameworks, including as means of communication and collaboration and as providing the capacity to access information efficiently and effectively.

Secondly, they highlight that the use of ICTs to this end requires the ability to evaluate information critically and competently and to use information accurately and creatively (Information Literacy Standards for Student Learning, 1998, cited in Voogt & Roblin, 2010). Finally, they suggest that ICT holds the promise of supporting the acquisition and assessment of 21st Century Skills, thereby recognizing the importance of ICT as a tool for the development of 21st Century Skills in the individual. The examined literature recognizes the potential of ICT for enhancing 21st Century Skills, primarily through functionalities that enhance the capacities for communication, collaboration, critical analysis, and creative use of knowledge.

The third chapter, "The demand for 21st Century Skills" which provides a brief overview of the literature associated with the current and predicted future demand for 21st Century Skills, at both the global and regional levels. In doing so, it provides a summary overview of the identified drivers of demand for 21st Century Skills, as well as evidence of the differing levels of demand. While much discussion of this issue is from a global perspective, published evidence covered by this section is particularly limited when discussing the demand for 21st Century Skills within LMIC settings.

However, what evidence there is highlights a noted diversity in demand between regional contexts—for example, between East Asia and subSaharan Africa—based on national policy priorities and labor market capabilities. This section also reveals similar patterns when looking at evidence related to future demand. In addition, a number of commentators highlight the need to bear in mind evidence from demographic predictions associated with the global workforce. Their conclusions point towards a need to look carefully at largely globalized discussions highlighting the urgency associated with the need for 21st Century Skills, particularly when looking at current national priorities among developing countries. In their discussion and synthesis study on 21st Century Skills, Voogt and Roblin (2010, 2012) draw attention to the range of drivers identified with the increased demand for 21st Century Skills.

The reviewed frameworks cited in their study attribute this largely to changes in society, particularly in global terms. Firstly, globalization and internationalization are seen as key drivers of change within the economy and labor markets at national, regional, and global levels. Secondly, Voogt and Roblin (2010) state that many commentators also draw attention in particular to the rapid development of technology and its impact on life, work, and learning, including in an increasingly globalized context. Most specifically, ICT is seen as driving a shift from an industrialized society towards information or knowledge-driven society.

The fourth chapter deals with “Pathways to the delivery of 21st Century Skills education,” provides an overview of the book that 21st Century Skills are acknowledged at national and global levels as priority attributes required to help countries and their workforces adapt to the significant worldwide changes in social and market economies. However, Section 2 of this study revealed a current and significant diversity in terms of the definition and conceptualization of those skills and a lack of consensus over how to frame them. In addition, despite a consensus in rhetoric surrounding the global demand for 21st Century Skills, Section 3 revealed a significant diversity in current and future demand for those skills at regional and national levels.

In the context of this study, this diversity is particularly apparent between those regions with either rapidly developing or developmental socioeconomic profiles. Levels of demand for 21st Century Skills in these settings are also strongly influenced by contextual factors, including existing industry, labour markets, and technological and communications infrastructure. These findings point towards a number of practical challenges resulting from the issues outlined. The combination of a lack of clear definition of ‘21st Century Skills’ together with variable levels of demand, particularly across developing countries, continues to present numerous practical challenges when it comes to the design and implementation of educational approaches for the teaching and learning of 21st Century Skills (Care et al., 2016).

In addition, supporting evidence from development contexts is generally regarded as limited, making it difficult to identify which approaches to skills delivery are most effective. These findings point towards a need to develop clear models for mapping the progression of acquisition for 21st Century Skills and, based on that, to develop tools for gathering evidence on the impact of the range of system-wide interventions associated with their delivery.

Strengths and Relevance of the Book

The book has several strengths. To start with, the book provides a succinct summary of all the theories illustrated in the book, making it easy to follow and interesting to read. We also consider it a perfect resource for scholars, students, and practitioners in the education field in general and in the field of curriculum and instruction in particular since it provides a rich representation of the 21st Century Skills in Curriculum and Instruction literature. Those who are new to the 21st Century Skills in Curriculum and Instruction field would benefit a lot as a comprehensive list of references is included. Unlike other books written about the 21st Century Skills in Curriculum and Instruction, this book also illustrates the continuing debates in the 21st Century Skills in Curriculum and Instruction literature and indicates the areas where empirical studies are sought for the benefit of the 21st Century Skills in Curriculum and Instruction researcher.

Although the book primarily targets scholars and advanced graduate students of curriculum and instruction, given its comprehensiveness and readability, it can be used as an essential reference material for students of curriculum and instruction at all levels, educational psychologists, instructional technologists, adult educators, distance educators, and for anyone else who seeks to deeply understand the broad and complex nature, evolution, and theoretical, philosophical, and empirical foundations of the 21st century skills of curriculum and instruction.

Even though the book does not focus on how to implement instruction, those who practice instruction will also greatly benefit from the book, as it helps them to understand the theoretical foundations of the 21st century skill of curriculum and instruction field and to make or justify the 21st century skill of curriculum and instruction implementation they may come across. As such, the book is unique, as it is useful for both academicians and practitioners in the broader field of education.

Concluding Remarks

There is a broad range of available literature discussing 21st Century Skills, and within this, there is evidence of general agreement across commentators on the need for new forms of learning to tackle global challenges. However, despite this consensus, there is no unique and single approach to the definition of '21st Century Skills'. Multiple sources identify a variety of competencies and skills included under the banner of '21st Century Skills', and while synthesis studies such as Scott (2015), Voogt and Roblin (2010, 2012), and Chalkiadaki (2018) highlight the similarities across key frameworks, their reviews demonstrate the extent to which a broad range of different attributes, competencies, and skills have been considered in defining both '21st Century Skills' and the range of parallel terminologies with which they are associated.

Approaches to the delivery of 21st Century Skills are currently impacted by these ongoing discussions over the definition and understanding of 21st Century Skills (Care et al., 2016). On this basis, while there is a broad range of documented interventions for 21st Century Skills training from around the world, many commentators conclude that there is currently little or no substantial evidence available on the most effective tools and approaches to deliver those skills.

A further issue emerging from the broad range of definitions of '21st Century Skills' is the extent to which the described capabilities, competencies, and skill sets in any given framework of 21st Century Skills are of relevance to specific regional, or national contexts. Most specifically, depending on a diverse range of global, regional and national contexts, there is evidence of a potential disconnect between particular definitions of '21st Century Skills' and their application.

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