



Tools for Transforming from VUCA World to BANI World: A Case of Educational Sector in Thailand

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Abstract

This paper aims to identify key skills for transformation from a VUCA world to a BANI world and how the Thai educational system can prepare students for this transformation. The VUCA world, which is volatile, uncertain, complex and ambiguous, is rapidly giving way in the post-pandemic period to a BANI world, which is brittle, anxious, nonlinear and incomprehensible. The BANI world is increasingly chaotic, with challenges that are completely unknown and cannot be predicted. While this is a relatively new concept, it is clear that there are tools that can be used to respond to the BANI world, including resilience and slack, alertness, mindfulness and empathy, adaptability and flexibility, and tools like data literacy, media literacy, and critical thinking. Today, the Thai educational system has gap and lack of some ability to promote and develop competent skills in students, as they have not been a priority in the past. Thus, the recommendation of this paper is that the educational system should be redeveloped to promote these skills from earlier or beginning stage such as early childhood.

Keywords: BANI, VUCA, Educational sector, Student preparation

Introduction

This paper aims to identify key skills for transformation from a VUCA world to a BANI world and how the Thai educational system can prepare its students for a BANI world. The world has always been a complex and uncertain place, one in which students and organizations face unknown challenges looking from the present into the future. However, not all kinds of uncertainty are the same. In the VUCA world, there are different kinds of chaotic influences on the present, including volatility, uncertainty, complexity, and ambiguity, which require individuals and organizations to address in different ways (Bennett & Lemoine, 2014). For example, an organization facing complexity may need to develop processes and systems to deal with that complexity by simplifying it as far as possible and ensuring that there are checks in handling complex procedures. However, managing the future is no longer quite as simple as only dealing with a VUCA world. The COVID-19 pandemic introduced further unpredictability into the world of individuals and organizations, creating a BANI world – one



which is brittle, anxious, non-linear and incomprehensible (de Godoy & Ribas Filho, 2021). This has created not just more uncertainty and more complexity, but a different kind of complexity, where flexibility and human responsiveness, more than comprehensive planning, are at the heart of dealing with unknown and unanticipated challenges (de Godoy & Filho, 2021). This is a fundamental paradigm shift and it is the origin of new or adaptive theoretical management model to fit for changing, where strategies developed for dealing with the future in a VUCA world may not be effective in a BANI world. As the BANI world is a relatively new concept (Cascio, 2020), there has been little application of the concept to the realm of education. This paper reflects on the difference between the VUCA and BANI worlds and how the Thai educational system can be readied to deal with it.

VUCA versus BANI worlds

The VUCA World

The acronym 'VUCA' originated in the management literature of the 1980s, when management theorists and others were beginning to look toward ways of dealing with complexity in an increasingly chaotic and changeable environment (Gläser, 2022). The term took hold in the 1990s, as it was adopted in the post-Cold War era to deal with unprecedented amounts of international political, military, and economic change that began to occur rapidly at that time (Gläser, 2022). In the 2000s, the term became commonplace in the business strategy literature, as a focal point of strategic thinking, foresight and planning (Bennett & Lemoine, 2014). Thus, the principle of VUCA has been understood for some time.

VUCA is an acronym, whose components stand for Volatility – Uncertainty – Complexity – Ambiguity (Bennett & Lemoine, 2014) as presented in Figure 1. Although these seem like challenging conditions, according to various authors they were reasonably well understood in terms of the challenges that they posed at the present (Bennett & Lemoine, 2014). For example, complexity implied that problems had a lot of different elements, and not all information was available to solve the problem. Ambiguity meant that there were unclear relationships between situations, while volatility implied rapid change and uncertainty meaning that the situation was not yet predictable (Bennett & Lemoine, 2014). These operating conditions are complex, but there have been known ways to manage them. For example, it was well understood that organizations needed effective leadership that identified upcoming challenges and supplied the resources and tools needed to deal with them (Sarkar, 2016). Organizations needed structure to deal with complexity, but also needed to retain some point of flexibility that would allow them to deal with ambiguity and volatility (Baran & Woznyj, 2020). Organizations needed to be willing to experiment and test hypotheses to resolve ambiguity, and simply be ready to deal with a certain amount of complexity in the operating environment (Bennett & Lemoine, 2014). Thus, in a VUCA world, organizations were dealing with challenging, but ultimately manageable, operating conditions in which they could make reasonable strategic decisions that had a good chance of leading to success.

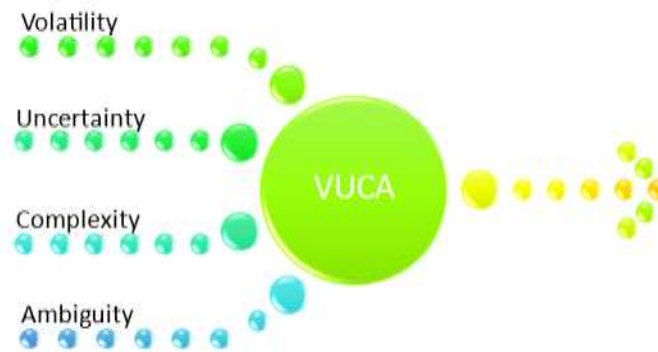


Figure 1 VUCA (Author's own work)

The BANI World

The COVID-19 pandemic almost immediately began to reveal an uncomfortable fact about organizations operating in a VUCA world – they were not nearly as suited to a chaotic and challenging environment as their leaders and stakeholders believed (Worley & Jules, 2020). Very rapidly, it became clear that organizations were not flexible, but fragile, as supply chains began to break and organizational disruption began to take hold (Worley & Jules, 2020). Observing this rapid descent into chaotic non-functionality in the face of an unpredictable shortage of resources, the new term ‘BANI’ was coined the new term ‘BANI’ as presented in Figure 2 – a world which is Brittle, Anxious, Nonlinear, and Incomprehensible (Cascio, 2020). As Cascio (2020) remarked, this describes “increasingly commonplace situations in which simple volatility or complexity are insufficient lenses through which to understand what is taking place. Situations in which conditions are not simply unstable, they are chaotic. In which outcomes are not simply hard to foresee, they are completely unpredictable. Or, to use the particular language of these frameworks, situations where what happens is not simply ambiguous, it is incomprehensible.” (Cascio, 2020). The BANI world also makes new demands on educational leaders, ranging from improved problem solving and teamwork to emotional intelligence, creativity, and other skills and experiences that enable leadership to guide educational organizations through rapid change (Ratanapitakdhada & Trirat, 2023). At the same time, the BANI world offers opportunities for learning through engagement of the individual’s intrinsic motivation for learning and curiosity, particularly if early efforts are made to encourage flexibility in learning and lifelong learning (Panthalookaran, 2022). There is also the opportunity for educational transformation, with a shifting focus on creativity and arts to address uncertainty (Mullooly, 2022). In other words, the world is no longer just slightly challenging but business as usual – it is completely changed.



Cascio's (2020) BANI model identifies four characteristics of a chaotic world in which even the near future is not just unknown, but unknowable. First, it is brittle – systems may seem strong, but they are not resilient and are prone to “sudden and catastrophic failure” (Cascio, 2020). A BANI world is also anxious, or in other words rife with fear, depression, helplessness, and the sense that “every choice appears to be potentially disastrous (Cascio, 2020).” The nonlinearity of the BANI world means that cause and effect may seem to be unconnected, or where the effect may seem to be far greater than the cause; seemingly minor problems can cause outsized failures. Finally, the BANI world is incomprehensible – answers may not seem logical and may not fit with our existing knowledge (Cascio, 2020). Thus, the BANI world is no longer business as usual, and dealing with it is not a question of logical resource assignment and risk acceptance, but is emotionally entangled, complex, and to some extent incomprehensible, at least in the short term.

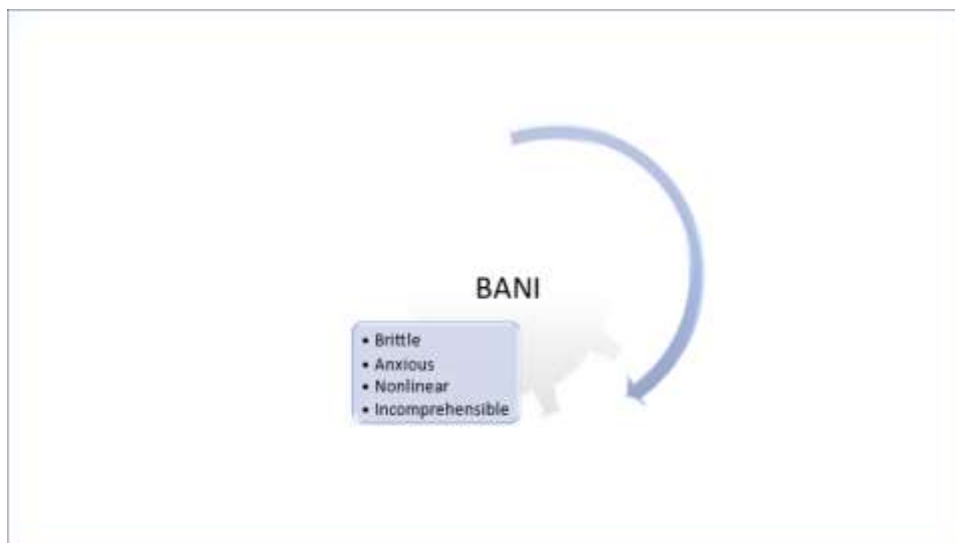


Figure 2 BANI (Author's own work)

Tools for Dealing with a BANI World

The relative novelty of the concept of the BANI world means there is little research addressing what the key success factors are or how such a world can be dealt with. However, there has been some thought as to what tools could be useful for the BANI world, which address the complexities and unknowns of this world. Cascio (2020) suggests that “brittleness could be met by resilience and slack; anxiety can be eased by empathy and mindfulness; nonlinearity would need context and flexibility; incomprehensibility asks for transparency and intuition.” The author acknowledges that these are responses, more than tools that could be leveraged into addressing the problems of the BANI world, but also notes that over time it is likely that the BANI world will become less incomprehensible. Therefore, better tools and coping mechanisms for the BANI world may be found in time.



Mitzkus (2022) offers four tools to deal with the BANI world's challenges and chaotic nature, this time explaining in more depth what their importance is and how they matter in individual and organizational terms (Mitzkus, 2022). Like Cascio (2020), Mitzkus (2022) argues that resilience is a necessary tool to deal with brittleness; resilience allows organizations and individuals to withstand pressure and to return to their initial condition relatively quickly. Attention is argued as the antidote to anxiety, as paying attention to the world can help identify causes of anxiety, determine when something is a real problem and when it is overblown or even 'fake news' (Mitzkus, 2022). Adaptability is argued as a tool to deal with nonlinearity, as individuals and organizations that can rapidly adapt to new circumstances are able to succeed regardless of what the end conditions are, and because flexible adaptation can avoid excessively strong responses that create nonlinearity. Finally, transparency is argued as a tool against incomprehensibility, as the more transparent something is, the more effectively it can be understood and made sense of (Mitzkus, 2022). In summary, the combination of these two authors suggests there are four key tools that need to be developed include resilience; attention, empathy and mindfulness; adaptability and flexibility; and transparency and intuition. This raises the question of how these traits can be developed within the context of the educational system.

In a post-COVID world, Beale (2020) points out, physical and psychological resiliences are at least as important as academic resilience (Beale, 2020). Therefore, this is one of the key priorities for education in a BANI world. There is some research into what is required to develop resilience among students. Holdsworth et al. (2018) suggests that students need support networks of friends, family, and school personnel, along with tools to stay mentally and physically healthy and perspective-challenging activities like goal-setting and self-reflection, to become resilient (Holdsworth et al., 2018). Students may also need internal resources like self-efficacy beliefs, confidence, emotional intelligence, and optimism, to develop resilience (Hughes et al., 2021). Therefore, it is relatively well known what has to be developed in order to enable students to be resilient in the face of change.

Developing attention, empathy and mindfulness is also critical for students. Mindfulness and attention can be developed through regular practice of activities like mindfulness exercises and mindfulness meditation, as has been shown in prior research (Weare, 2013). These activities can be used from a relatively young age, although research into their use in formal education among younger students is limited (Weare, 2013). Empathy develops naturally in early childhood, but can also be supported through stories, art, and conversation and interaction with others (Lithoxoidou et al., 2017).

Developing adaptability has previously been less of a focus of research, but recent studies have focused on it as a critical aspect of student effectiveness in the post-COVID period (Stockinger et al., 2021). Stockinger et al. (2021) found that students that had a greater ability to adapt to changing circumstances experienced higher levels of hope and lower levels of anxiety and hopelessness, as well as indirectly increased levels of perceived learning.



Therefore, although this has not yet been much of a focus of research, it is clear that developing adaptability needs to be a priority.

While transparency is a feature of the situation or environment (Cascio, 2020; Grabmeier, 2020; Mitzkus, 2022), there are ways that individuals can be taught to deal with transparency. For example, students who are taught data literacy, media literacy and critical thinking skills may be better positioned to identify ‘fake news’ and distinguish rational and fact-based information from lies and exaggerations (Knaus, 2020; Machete & Turpin, 2020). Therefore, schools should be prepared to teach media literacy and critical thinking in order to prepare students for a BANI world.

Another approach to addressing the BANI world is through focus on development of creativity and technical capabilities. Mullooly (2022) advocated for arts-based and activist educational practice to help students develop creativity and resilience in response to a BANI world. Panthaloookaran (2022) pointed out that individual motivations for learning are critically important in overcoming learning challenges as well, and suggested that entrepreneurial education could benefit from increased emphasis on creativity and flexibility. Education in the principles of sustainability has also been highlighted as a key tool for preparing students for the future BANI world (Marcos-Sánchez et al., 2022). Thus, there are many opportunities to facilitate learning in the BANI world.

To sum up, in order to prepare students for this new environment, the BANI world necessitates the development of resilience, attentiveness, empathy, flexibility, and transparency in addition to creative teaching methods. Developing creativity and technical competency through arts-based education, highlighting individual motivation for learning, and teaching sustainability values are alternative strategies for equipping students for the challenges of the BANI world.

The Readiness of Thai Education for BANI World

Given the literature above, there are several ways which an education system can prepare students for a BANI world. Firstly, student psychological and physical resilience, as well as academic resilience, should be developed and supported to combat brittleness. Students’ attention, empathy, and mindfulness should be developed to address anxiety. Student adaptability should be enhanced to deal with nonlinearity. Finally, students should be taught essential skills like media literacy, data literacy, and critical thinking in order to deal with the fundamental issue of incomprehensibility. This issue raises the question of how prepared the Thai education system is to meet these challenges.

The resilience of the Thai educational system and its ability to instil resilience in its students is a major issue for the post COVID-19 world (Intharawiset et al., 2021). Although the Thai educational system adapted somewhat to the demands of the COVID-19 pandemic, like other countries the application of a high level of stress



did lead to unpredictable breakdowns in the educational system (Intharawiset et al., 2021). Perhaps even more importantly, there was no allowance for the resilience of students themselves, and many students experienced negative academic and psychological effects from the pandemic that were not easily recoverable (Intharawiset et al., 2021). Thai students already face challenges due to high pressure to succeed academically, as well as the economic strain that education can place on families (Yeung & Li, 2021). In addition to students, the resilience of Thai teachers has also been strained significantly by the COVID-19 pandemic, adding on to existing stressors that were already in place due to factors like working condition and educational policy (Ratanasiripong et al., 2022). These authors surveyed public school teachers, finding high rates of burnout and associated problems like stress, anxiety, and emotional exhaustion. In part, this can be attributed to a general surge in mental health issues during the COVID-19 pandemic, where uncertainty, isolation, physical illness, and stress contributed to widespread unease (Ruengorn et al., 2022). Thus, the lack of resilience within the Thai educational system is not just due to the effect of the COVID-19 pandemic on students – it is part of a widespread and pre-existing state, which the pandemic brought into stark contrast. This is therefore one area where there is a need for significantly more focus, as developing student resilience needs to begin from an early age, in order to address the increasingly brittle world they encounter.

The development of alertness, empathy and mindfulness are also an area where the Thai educational system is not fully succeeding, mainly because it has not been designed to do so. The Basic Core Curriculum does include “morality... and ability to live in peace and harmony in the world community (The Ministry of Education Thailand, 2008).” However, this objective does not translate into active teaching of alertness, empathy or mindfulness. There have been some experimental approaches to teaching mindfulness, for example the use of the Buddhist principles of Trisikkha (wisdom, mentality, and morality) and mindfulness teaching in Buddhist schools (Klechaya & Glasson, 2017). The development of these kinds of teaching practices could be significantly expanded, to give students throughout the Thai educational system the tools to deal with the anxiety of the BANI world.

The literature on developing adaptability of students is limited, as this has only recently become a concern (Stockinger et al., 2021). In fact, no research could be identified into the extent of adaptability and flexibility of Thai students at any level, suggesting that to date this has not been a major concern of the academic world. As Stockinger et al. (2021) has noted, this is one issue that has been addressed previously. However, it can be observed that this is not one of the major concerns of the Basic Core Curriculum (The Ministry of Education Thailand, 2008), and the author could not find any mention elsewhere about its development. This is not only a problem of Thailand. As Sadovaya and Simonova (2016) have noted, adaptability is a trait relating to the social environment, and not an academic practice or trait (Sadovaya & Simonova, 2016). Therefore, teaching students to be adaptable is an issue of the social environment of the classroom rather than the curriculum (Sadovaya & Simonova, 2016).



This implies that the learning environment of Thai schools should be changed to enable greater adaptability, as currently Thai classroom culture is often very teacher-focused, rigid and inflexible (Nicholls & Apiwattanakorn, 2015). Therefore, promoting adaptability may require a significant change in educational practice from the bottom up.

Finally, how well does the Thai educational system perform on data literacy, media literacy, and critical thinking, which are essential to deal with incomprehensibility? The answer appears to be ‘not well’. The Basic Core Curriculum, which specifies minimum educational outcomes for elementary and lower secondary students, does not specifically address outcomes or teaching practices like critical thinking, arts-based education, or entrepreneurial education (The Ministry of Education Thailand, 2008). While there have been experiments in developing data literacy through artificial intelligence (AI) and other tools, these have only recently been introduced and do not fully address the need for data literacy (Aung et al., 2022). Recent studies have also highlighted gaps in media literacy, which also are the basis for calls for educational reform (Chainan, 2022). While there have been calls for reform to improve societal resilience in general, these calls have focused on large-scale economic sectors and societal institutions, not on education per se (Marome & Shaw, 2021). Media literacy and digital literacy have become more important at the university level, but still have not been integrated at the pre-university level (Seechalio, 2021). Critical thinking development is also still weak according to assessments of Thai students at the undergraduate level (Ploysangwal, 2018). Various assessments of critical thinking among Thai undergraduate students have shown that critical thinking dispositions are low to moderate on average (Sireerat et al., 2022) and that there is a need to enhance critical thinking skills at the lower secondary level (Kwangmuang et al., 2021). Thus, there are still significant gaps in the preparation of Thai students for a BANI world. Overall, therefore, this is a significant issue in the educational system.

To summarize, the concept of readiness and non-readiness refers to the Thai educational system's ability to appropriately prepare students for the complexity of a BANI environment. Readiness includes developing resilience, emotional intelligence, flexibility, and crucial cognitive abilities. Non-readiness, on the other hand, highlights deficiencies in these areas caused by the COVID-19 epidemic and limitations in the school curriculum. It is critical to address these problems in order to better educate students for the complex difficulties of the modern world.

Conclusions and Recommendations

In conclusion, the BANI world requires different skills and strategies to cope with than the VUCA world. Table 1 summarizes the differences between a VUCA world and a BANI world in the context of education. Students need resilience to deal with brittleness; alertness, empathy, and mindfulness to reduce their experience of anxiety; adaptability to meet the challenges of nonlinearity; and multiple tools like data literacy, media literacy, and critical thinking skills to allow them to create transparency and deal with the fundamental incomprehensibility



of the BANI world. These tools allow individuals to cope relatively well with the unpredictable, chaotic situations that a BANI world has placed them in.

The BANI worldview is a relatively new one, and there is as yet little research into how organizations or individuals can best deal with it. However, the evidence that does exist suggests that the Thai educational system is not well situated at present to prepare students for operating in a BANI world. The main recommendation of this paper is that the educational system in Thailand needs to be reoriented toward developing the resilience, alertness, adaptability and ability to create transparency that students will need to deal with the chaotic BANI world of their future. This skill development must begin with supporting the development of student psychological, physical and academic resilience and adaptability through redesigning of the classroom social environment to take into account student needs and to create continually changing challenges. Beginning in early childhood education, development of the empathy, alertness and mindfulness of students should be a priority, encouraging them to care for others and potentially drawing on Buddhist mindfulness practice to develop these skills. Finally, modern skills including data literacy, media literacy, and critical thinking should be prioritized beginning in early childhood education, to make sure that Thai students are prepared for the future BANI world and its chaotic and unpredictable challenges.

Table 1 VUCA vs. BANI world

	VUCA	BANI
The world is...	Volatile, uncertain, complex, ambiguous	Brittle, anxious, non-linear, incomprehensible
This creates...	Uncertainty, expectation of change	Anxiety, inability to detect or deal with change
The world can be dealt with through...	Leadership, structure, environmental scanning and foresight, experimentation	Resilience, attention, adaptability, transparency
Educational priorities are...	Information technology, entrepreneurship, foresight	Resilience, critical thinking, media literacy, arts and creativity



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