EMOTIONAL STABILITY AND MOTIVATION OF 21ST CENTURY LEARNERS: A COMPARATIVE REVIEW OF LEARNING THEORIES

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Abstract. The education model in the 21st century shall be learner-centered. Learners are expected to be independent to engage in self-directed learning with the integration of technological tools in developing necessary 21st century skills. However, the foundation of this education model shall not be neglected as positive emotion and motivation are the determinants of achieving the desired outcomes. The researcher applied a comparative review method to contrast the three learning theories, namely (1) humanistic theory (2) social constructivism theory, and (3) self-determination theory which are significant in the self-directed learning context. The inference of these theories on personal and social development, emotional stability, as well as the motivation of learners in the 21st century was also examined in this paper. The outcomes of this review paper benefit educators in the curriculum and pedagogy design, as well as aid researchers in understanding phenomena and formulating appropriate research frameworks for future studies. For understanding emotional stability and motivation among the 21st century learners, the researcher concluded that the humanistic aspect of learning shall not be compromised. Furthermore, the cause-and-effect of the emotion and motivation constructs deserves a more detailed empirical investigation.

Keywords: 21st century learners, self-directed learning, humanistic theory, social constructivism theory, self-determination theory

Introduction

In the 21st century’s educational environment, a learner who is able to engage in self-directed learning with a good understanding of oneself, being able to do self-reflection and socialise effectively with other people in the community of learning, as well as motivating oneself intrinsically is paramount to succeed in the independent learning context. Self-directed learning does not necessarily represent isolation from other learners in the learning process as the rapid acceleration and adoption of Information and Communication Technology (ICT) has made social collaborations possible in this lifelong learning model. Individuals’ connection, reflections, and revisions between knowledge creation and practical problem-solving are facilitated by the learner’s self-regulation (Stehle and Peters-Burton, 2019). Thus, self-regulation is an essential skill for independent learners to develop the desired 21st century skills.

The term 21st century skills refer to the abilities required for employment and education in the modern age. According to Partnership for 21st Century Skills, it is crucial for learners to equip themselves with the following three types of skills in the new age: (1) learning and innovation skills such as creativity and innovation, critical thinking and problem solving, communication and collaboration; (2) information, media and technology skills such as literacy in information, media, and information and communication technology; and (3) life and career skills such as adaptability and flexibility (MTVT, 2009). According to studies on 21st-century skills, psychological and personality traits are the most commonly mentioned critical determinants (Laar et
al., 2020). Also, the motivational aspect cannot be disregarded as it also affects learners’ performance or achievement (Rafiola et al., 2020). The positive emotional experience in the learning environment forms the foundation for positive interaction that helps to enhance the motivation for learning (Meyer and Turner, 2006; Pekrun, 1992). In blended learning which is getting ubiquitous post-pandemic, positive emotion shows a significant relationship with learners’ motivation to engage in learning (Acosta-Gonzaga and Ramirez-Arellano, 2021).

The model of self-directed learning to develop 21st century skills is grounded in humanistic assumptions. Self-determination theory (SDT) is described to have a conspicuous connection to humanistic psychology (Seligman & Csikszentmihalyi, 2000). Furthermore, the social constructivism theory is also substantial and discovered to transform an individual into a self-directed learner (Khadimally, 2021). Thus, three learning theories namely humanistic learning theory, social constructivism learning theory, and self-determination theory have been chosen in this comparative review. This paper aims to contrast the three learning theories and discuss how they impact the personal and social development, emotional stability, as well as the motivation of learners in the 21st century. The outcomes of this paper can benefit educators in knowing how to develop a curriculum and pedagogy that can prepare learners with desired 21st century skills. Furthermore, it aids researchers to predict and understand phenomena to develop effective frameworks for supporting future research studies.

Understanding personal and social developments, emotion stability and motivation

In psychology, the term development is defined as certain changes that happen in human beings from the phase of birth to death (Woolfolk, 2019). Woolfolk stated that a temporary change is not considered as part of the development. The development here denotes those changes that happen in order and changes that can maintain for a long period of time. The term personal development refers to how much a person understands who he or she is and what he or she can do (Thornton, 2016). Woolfolk (2019) described personal development involves changes in one’s identity and personality. The identity and personality development can be shaped through the socialisation process and an individual’s experience of incongruity between the real self and the ideal self (Adams and Marshall, 1996). Personal development shall start from having good self-awareness or self-knowledge, which is being aware of personal factors such as one’s motivations, preferences, personality, and understanding that could affect his or her judgement, decision-making, and interactions with other people (Kadam et al., 2018). Without being aware of what one is or having a clear self-concept, it is hard for one to improve oneself and make a difference. According to Kadam et al. (2018), a learner who owns high self-awareness tends to aim for better productivity to improve his or her academic performance. In addition to that, learners with high self-awareness will be more open to feedback and are willing to make positive modifications to personal behaviour for success in learning. For enabling personal development to happen, Kadam et al. (2018) suggested that one has to do self-analysis by stepping back and seeing himself or herself as an object in an experience, observing the positive and negative impacts that may have influenced his or her behaviour and attitude through social interactions. Thus, this suggests that social interactions are perceived to influence personal development and subsequently bring about social development.

Social development is defined as the changes that happen to an individual when he or she relates to others (Woolfolk, 2019). Similarly, Thornton (2016) defined social
development involves the understanding of an individual in relation to others, how an individual socialises, communicates, makes friends, understands the social rules, and behaves accordingly. Apparently, social development occurs as the result of the socialisation processes, including physical and cognitive maturation. One's capacity to promote emotional intelligence for creating positive relationships is significant in social development (Farrer, 2022). From various literature studies, socialisation processes are found to be divided into two types, namely primary socialisation and secondary socialisation. Crisogen (2015) described that primary socialisation takes place when a child learns the behaviours of a member of a specific culture, particularly from immediate family and friends. In contrast, secondary socialisation involves the process of learning behaviours as a member through a smaller group in a larger population, such as from school, religious place, workplace and etc. In addition, Caplan et al. (2019) specified that influences of genetics (nurture) and social environment (nature) can affect the social development of an individual. In another piece of literature, Woolfolk (2019) described that self-concept can also influence the social development and emotional development of an individual. Self-concept is dynamic and malleable to social influences, including one’s motivation for seeking self-awareness or self-knowledge (Vinney, 2018).

Unlike social development which emphasises on an individual’s interactions with other people, emotional development highlights the feeling expression of an individual. Emotional development is the ability of an individual to see things from another individual’s point of view, understand own and others’ feelings (Woodfolk, 2019). In the opinion of Thompson (2001), emotional development is essential to understanding an individual’s social competence, intellectual achievement, self-understanding, and mental health. In addition, Thompson asserted that emotional development is intricately tied to the increased level of self-awareness and self-understanding of behavioural standards, which are significantly shaped by the reactions of others to an individual, such as from parents to child, teachers to learners, etc. In the present era of the industrial revolution and digital technology, challenges and difficulties that lead to psychosomatic issues become apparent in many individuals. With the sudden invasion of coronavirus across the globe which has caused various disruptions, psychosomatic problems such as anxiety, frustration, and mental upsets become acute among young and old, including learners who struggle to cope with the new normal learning approaches. Thus, emotional stability becomes a vital concern during the emotional development process.

Pant and Joshi (2016) illustrated the fruits of normal emotional development yield stable emotional behaviour. They described that an emotionally stable individual is able to withstand delay in satisfaction of needs, tolerate frustration or delay negative emotions reasonably, believe in long-term planning, have freedom from unreasonable fears, commit mistakes without feeling disgraced, and is capable to delay or revise expectations in any situation. Emotional stability helps an individual to develop an integrated and stable way of overcoming problems through reality-oriented thinking, sound judgement, and critical evaluation (Chaturvedi and Chander, 2010). In the classroom setting, learners who feel safe in the learning environment and feel connected with peers and staff demonstrates higher emotional stability (Schunk et al., 2014). Over the years, there has been increasing research work to study the relationship between emotion and motivation in educational psychology. In one of the literature pieces, Turner et al. (2003) stressed that emotion or affect is closely related to motivation in classroom learning, which could be the mediator of learners’ motivation, or an integral
part of the motivation process in learning. On the other hand, Ogunjimi and Lawal (2020) mentioned that the emotional reactions or emotional engagement of learners, such as learning experiences in the classroom, instructors, and institutional environment, affect the outcomes of academic performance. Emotion and motivation are considered something “hot” as they can change one’s behaviour (Stangor and Walinga, 2014). Hence, it is important for educators to deeply understand these two hot components of “affect” domain, particularly for effective classroom management and improving the achievement of learning outcomes of learners.

In the academic learning environment, motivation significantly drives learners to the destination of academic success. Motivation is regarded as the driver of human behavior as it drives an individual to do for attaining the outlined goals (Ogunjimi and Lawal, 2020). Also, Ogunjimi and Lawal (2020) specified that motivation can be internally or externally driven, which are termed intrinsic motivation and extrinsic motivation. As opposed to learners who are intrinsically motivated to complete the given task, extrinsically motivated learners need rewards such as grades, recognition, rewards, and praise in the learning process. Thus, learners who are internally motivated do something because they enjoy it and feel that learning is significant for them. Nonetheless, in the opinion of Tohidi and Jabbari (2012), they mentioned that it is impossible for learners to always be internally motivated. Thus, this makes situated motivation becomes crucial, which is about the environmental condition created by an educator. Nguyen (2014) revealed the sources of situated motivation include the professionalism of the educator, cooperative classmates, productive activities, classes with a positive ‘mood’, and the usefulness of learning contents in the classroom.

All in all, the above literature studies on personal and social development, emotional stability, and motivation constructs induce a common understanding of how influential external or environmental factors are in the learning process. The variables such as immediate family members, friends, academic and non-academic members, learning spaces, and crises can significantly impact the positive growth of an individual, both internally and externally. Internal growth that is positive will enable an individual to achieve greater congruence and bring about self-actualisation. In the context of learning in the 21st century, a self-actualised student is internally motivated to learn, actively explore and construct his or her knowledge and experience through personalised lifelong learning. Aided by the rapid advancement of digital technology, boundless connection offers collaboration opportunities and unlimited knowledge constructed through socialisation. In sum, it is always vital to understand by developing a deep connection with the most powerful person inside us, one can avoid getting lost outside when keeping up with the change and challenges in this dynamic environment.

**Learning theories underpinning 21st century learners**

A theory is defined as a set of statements, principles, or ideas that are associated with a subject that helps to explain or predict a phenomenon (Picciano, 2017). Graham et al. (2013) noted that the terms theory and model refer to the same concept and can be interchangeably used. This section discusses and contrasts theories or models that are relevant to the personal and social development, emotional stability, and motivation of 21st century learners in the learning journey. Only three learning theories are discussed and covered in this paper, namely humanistic learning theory, social constructivism learning theory, and self-determination learning theory.
**Humanistic learning theory**

Humanistic learning theory is grounded based on the philosophy of humanistic theory in a psychology study. The primary contributors to this theory include Abraham Maslow and Carl Rogers. The theory centers on the learner as an individual or personhood. The goal of education or learning is not about the intellect or knowledge, however, it is predominantly to facilitate personal growth as a whole for developing self-actualisation (Sharp, 2012). According to Drew (2021), the basic assumptions in humanistic theory include: first, a learner must have free choice to do and think what they need; second, a learner needs to be in a positive mood to achieve the best; third, a learner has an internal desire to become the best self; and fourth, humans are innately good. Apart from that, there are a few principles leading to the development of self-actualisation in this setting. First, the learning model takes into the consideration of learner’s interests and goals, thus bringing about intrinsic motivation rather than extrinsic (Sharp, 2012). The theory asserts that when their needs for learning are fulfilled, they will be motivated to learn and achieve more in human well-being. Learners are to make choices to focus on the specific courses that they need and want to know, including setting future life goals. In other words, learning shall be personalised and relevant to the learners. Rogers (1957) described this condition as empathetic understanding.

Second, the model honours learners to have self-direction in the learning process, and a teacher or tutor serves as a facilitator or a partner in this model (Loeng, 2020). Hence, the main role of the teacher or tutor is to foster and create an engaging learning environment for learners, and to encourage learners to source for things that they are passionate about so that the learning process is stimulating. In a classroom setting, Rogers (1957) described this learner-instructor relationship as unconditional positive regard. The instructor accepts the moment of difficulties faced by the learner and trusts that there are valid reasons. In other words, humanistic learning theory supports the models of student-centered learning and self-directed learning that are emphasised and acknowledged in the 21st learning environment. The model avoids instructor-centered learning in the transmission of knowledge. Third, the model holds a principle that the measurement of achievement through final grading is not important in the learning process as it forbids the learner to achieve satisfaction and excitement when much focus is placed on the grade of achievement, which is more to the extrinsic aspect. The most preferable assessment strategy to gauge learners’ competency under the humanistic theory is self-evaluation or formative assessment. The formative assessment enables frequent constructive feedback to be given to learners for developing self-confidence and mastery rather than a summative critique with no chance to improve performance upon completion of the learning module (Chen and Schmidtke, 2017). Offering judgement through constructive feedback does not contradict the notion of unconditional positive regard as it values the learners as an individual of worth (Rogers, 1957).

Fourth, humanistic learning theory accentuates that knowledge and feelings shall go hand in hand in the learning process. Humanistic educators do not separate the cognitive and affective domains in the classes and curriculum, with a focus on various aspects of learners which is not just one-way lecturing from instructors and note-taking during lectures. Learners who are provided with positive reinforcement by empathetic teachers can develop high self-efficacy and self-trust, as well as for growing and changing constantly with deeper learning (Purswell, 2019). Lastly, the humanistic model
highlights the provision of a conducive learning environment. The learning environment provided to learners shall be safe and supportive so that they are feeling comfortable exploring new possibilities (Madsen and Wilson, 2012). A stimulating learning environment is significant for promoting the learner’s needs physically, mentally, and emotionally, which are more than the learning content. Purswell (2019) illustrated a classroom setting that is congruent or transparent can promote transformational learning among learners. The learning environment shall promote openness, respect, trusting relationships, and open dialogue rather than a debate.

**Social constructivism learning theory**

Constructivism is an educational theory that explains how knowledge is actively constructed by an individual and how the learning process takes place (Palit, 2018). The theory of constructivism was greatly influenced by a psychologist named Jean Piaget, whereas the social constructivism theory was developed by Lev Vygotsky (Huang, 2021). Constructivism theory describes the active creation of knowledge from personal experience. However, Vygotsky argued that an individual has more than a set of potential abilities if proper guidance is provided by others. Kim (2001) described the social constructivism model stems from three basic assumptions: first, human activities construct reality, and reality cannot be discovered prior to its social invention; second, knowledge is a product constructed through social interactions and cultural context in the environment the individuals live in; third, learning is viewed as the result of social process in which social engagement creates meaningful learning.

Vygotsky has outlined a few principles in this model. Social interactions and communications with more knowledgeable peers or instructors can make learners begin to move towards individualised thinking (Huang, 2021). He described learning process takes place when there is an establishment of a Zone of Proximal Development (ZPD) with the presence of a problem, the instructor or peers, and the learner (Picciano, 2017). For enabling a learner to move through the ZPD, three aspects are to be focused on: the presence of more knowledgeable other, social interactions with a skillful facilitator, and scaffolding supports (McLeod, 2019). Palit (2018) described the ZPD as the gap between the Zone of Actual Development (ZAD) and the level of potential development. ZAD reflects the level where learners have already mastered the knowledge without guidance. For getting into the next higher level, learners need to move through ZPD with guidance provided by knowledgeable others and apply the scaffolding approach till the next level of equilibrium is achieved.

One of the notions in social constructivism is to create authentic or situated learning, which promotes activities that are relevant to the application of learning and take place within a similar culture (Brown et al., 1989). Constructivism sees learning as ongoing and continuous, and hence the preliminary, formative, and summative assessments are viewed to reflect this model (Alleman and Brophy, 1998). In addition, Sardareh and MohdSaad (2012) suggested peer assessment and authentic assessment practices rather than examination to be adopted in the constructivism model, for instance, role play, concept maps, reflective journals, portfolios, debates, etc. They also asserted the importance of providing descriptive feedback to learners in the social constructivist classroom to close the learning gap. According to Martinez-Argüelles et al. (2015), feedbacks are critical for resolving future assessment tests and facilitating the detection of mistakes made in knowledge construction. A good feedback practice can enhance the cognitive, behavioural, and motivational aspects of online learning (Bashir et al., 2016).
Self-determination theory is concerned with an individual’s self-determination, the decisions made by an individual without any external motivation or influence (Khan et al., 2018). The term self-determination was introduced by Edward Deci and Richard Ryan and the thought was rooted in humanistic psychology. The basic assumptions underlying this theory are: first, an individual is actively seeking growth through mastery over challenges and new experiences for developing a sense of self; second, the autonomous motivation of an individual is vital in this model. The theory suggests that a person becomes self-determined when three universal psychological needs are fulfilled, namely relatedness or connection, autonomy, and competence. When dealing with digital technologies, Khan et al. (2018) described that the fulfillment of the need for relatedness is critical as it makes users feel connected, have a closer bond with other people, and feel supported by the system in learning. The condition of relatedness is crucial, particularly in online teaching and learning through the use of a learning management platform or getting engaged in Massive Open Online Courses (MOOC). In the classroom context, learners experience relatedness when their views are perceived to be listened to and responded to by others. They specified that users’ intrinsic motivation can be enhanced through the sense of relatedness.

Moreover, autonomy refers to “self-rule” or actions that are self-regulated, or the sense of freedom without control (Guardia, 2009). Learners experience autonomy when they are supported, given the structured format of learning and freedom to initiate and implement solutions to problems in learning (Khan et al., 2018). Thus, learner-centered learning with supporting guidance is crucial to address this need. The final need that is highlighted in this model is called competence. Deci and Ryan (1985) described this need as the capacity of the individual to effectively interact with the environment through exploration, learning, and finally adaptation. White (1959) defined this capacity of interaction as “effectance motivation” which promotes the feeling of efficacy. In other words, learners experience competence when they respond with a mastery of skills at the end of the given challenge, which drives their intrinsic motivation. Guardia (2009) stated that the fulfillment of competence not necessarily proves success in learning but it fosters the act of engaging in activity to enhance one’s capacities and potential.

Implications of three learning theories on emotional stability and motivation: A comparative analysis

The three learning theories that have been reviewed in the previous sections include humanistic theory, social constructivism theory, and self-determination theory. The model of humanistic highlights the importance of promoting positive emotion or positive mood of an individual in the learning process as it helps the learner to achieve self-actualisation and personal well-being. Meanwhile, in social constructivism learning theory, emotions are shaped by culture and society, and emotion is created through social interaction to drive learning motivation. In self-determination theory, the self-determined and non-self-determined behaviours of a learner significantly decide on the emotional state in the learning process under the supporting environment.

Distinctiveness
There are distinctions among the three theories when deliberating the emotional and motivational aspects in the learner’s context. Apparently, a learner in a humanistic school greatly expects and seeks emotional support from others to excel in academic study. Learners learn best when they feel happy, relaxed, supported, and comfortable. If the given learning environment or the external factor is not engaging nor stimulating, the learner is unable to achieve his self-actualisation and subsequently resulting in shallow learning. In addition, for achieving self-actualisation in the highest tier in the five tiers of Maslow’s triangle, receiving the extrinsic aspects of motivation from the lower hierarchy are prerequisites, such as physiological needs, safety, love or belonging needs, as well as self-esteem. Thus, the emotional needs of the lower hierarchy must be satisfied before personal growth can take place. Fulfilling the emotional need is a prerequisite for personal development.

In another school of thought, instead of focusing on emotional support to the individual, the learners or individuals in the social-constructivism school are actively constructing the learning experience through social collaboration to foster the feeling of community and motivation in learning. The learners in this school have a lesser emotional focus to “kick off” the learning. In contrast, social interaction is constantly built as the momentum to promote motivation in the learning journey, both extrinsically (e.g. praise) and intrinsically (e.g. fun). In this school of thought, social interaction creates positive emotion and such engagement is viewed as a catalytic agent that drives personal development.

Conversely, individuals who are from the self-determined school of thought learn best when they have their own intention or goal, and simply enjoy the learning process with autonomous motivation. These learners can manage and control the emotional aspect better as they acknowledge their own responsibility for learning and accept the consequence of actions with emotional outcomes, without blaming others but fixing the problems themselves. For instance, if a researcher does not want to feel bad about his or her research findings, the researcher will be self-determined to do a thorough research plan and apply a proper research design for acquiring the desired outcomes that lead to self-satisfaction. In this model, the emotional aspect is regarded as the product that the individual wishes to feel.

**Similarities**

The three learning theories correspondingly highlight the importance of promoting both extrinsic and intrinsic motivation in learning. The extrinsic form of motivation with the support received from the learning environment is crucial for regulating intrinsic motivation to promote the personal growth of learners. In humanistic and social constructivism models, both extrinsic and intrinsic motivations are discovered to be equally important. However, intrinsic motivation is the central tenet of the self-determined model, with intrinsic motivation offered as autonomous support. Furthermore, these schools nurture learner-centered learning with instructors as the facilitators in supporting the learning process. Consistent with the humanistic model, learners are to take over their own responsibility in learning with high enthusiasm. The social constructivism model holds an ideology that learners are unique and with different learning styles. The exchange of information with other learners and collaborator enables personal and idiosyncratic learning to occur through reflection and critical thinking. Likewise, the learner-centered method happens in the self-determination model as autonomy is given to learners to make their own choices.
without control, which underpins the humanistic approach. Thus, this review supports the justification by Seligman and Csikszentmihalyi (2000) on the self-determination model. Humanistic learning is also implicitly found in the social constructivism model when reflective of knowledge materialises in an individual.

In addition, the humanistic and social constructivism models seemingly reinforce the metaphor of emotion as the pilot, whereas motivation is the engine or plane. In humanistic theory, ensuring the positive emotion of learners has been highlighted to promote personalised learning. Correspondingly, social constructivism emphasises the provision of an engaging and stimulating learning environment through social collaboration to evoke positive emotions that foster knowledge creation. In contrast, the emotional aspect is the desired product in the self-determination theory.

**Limitations and criticism**

Although the three learning theories are prevalent for emotional stability and motivation of learners for personal growth, they do have some practical limitations and criticisms in teaching and learning. First, one of the criticisms of the humanistic model is that supporting the learners to achieve “self-actualisation” for developing personal growth and self-interest in learning is unrealistic as it is unmeasurable. Affirming that a learner has achieved the state of self-actualisation has no numerical support and it is rather complex for educators to monitor its effectiveness in pedagogy. Another major criticism of the humanistic model is that the hierarchy of the pyramid appears to be rigid. Apparently, there are learners who may still develop self-actualisation with high intrinsic motivation to learn although some of the basic needs are not satisfied, for instance, a gifted and talented learner who is born creative in music or arts will have creativity takes precedence over the other needs. The individual can still excel and achieve full potential in the learning and life journey without full attainment of needs in the lower hierarchy. From another point of view, learners who are from poor families can also perform flying colours in their studies to achieve self-actualisation in life.

In the social constructivism model, one of the criticisms is that some learners in the classroom do not learn best through collaborations and group discussions. This approach suits the group of learners who are extroverted, however, not the introverted one who is shy and quiet in the classroom. The dominant group will drive the thinking of other groups of learners and contribute more than others, leaving the weaker ones behind in the learning process. Other than that, achieving the purpose of collaboration to construct new knowledge among learners requires facilitators or instructors who are well-trained to make sure that the learning outcome is achieved with supporting and engaging learning environments and a distinct curriculum design that promotes collaborations. In addition, this model is discovered to de-emphasise individualised or solitary learning. Certainly, there are learners who enjoy doing their own reading, doing their own research work, and writing in an isolated room. For adult learners who engage in distance education, teaching and learning are mostly individualised. There are also learners who are reflectors and enjoy hanging back, watching, thinking, and learning. Thus, this model is biased by the ideology that all learning must involve social interaction to be successful. Furthermore, the time factor shall not be omitted in this model to develop individualised learning. Learners need ample time to engage in reflective thinking and be supported by the thoughtful implementation of the experienced facilitator in the learning process.
Meanwhile, intrinsic motivation in the self-determination model is difficult to be developed in young learners or children who still need external outcomes or rewards. This theory predominantly speaks about intrinsic or extrinsic motivation, in which extrinsic motivation is perceived to thwart the need for satisfaction. Intrinsic motivation among learners may only increase with increasing age. Another major criticism is that in almost all levels of education, the major outcome that every learner wishes to achieve is to graduate with flying colours or fulfilling the minimum passing grade so that one can move on to the next semester. Some good examples will be the compulsory completion of minimum coursework or the seminar requirements set in the doctorate academic program, which can be regarded as the extrinsic motivation for doctorate candidates. Other than that, for learners who come from families who low income, the desire to acquire a scholarship, monetary rewards, etc. as extrinsic reinforcement to pursue tertiary education is another major criticism against this model. The “either-or” aspect in this model seems irrelevant in this context. Most of the time, the intrinsic and extrinsic motivation factors are significant and shall be present concurrently.

**Conclusion**

The 21st-century education model is characterised by the rapid change of pace and use of digital technology in teaching and learning. Hampered with the global outbreak of coronavirus and a sudden shift of teaching and learning overnight, all these have significantly impacted people of all ages socially, emotionally, and psychologically. When learners are not motivated, their engagement reduces and they are not willing to initiate the learning tasks individually and socially. Likewise, when learners express unfavourable emotions with high anxiety, their performance and personal growth will be affected accordingly because of the presence of negative reinforcement. Emotions and motivation are two faces of a coin. They activate or deactivate each other and will direct the behaviours of learners (Turner et al., 2003; Pekrun et al., 2002). A double perspective of the cause-and-effect relationship (Scarantino and de Sousa, 2018; Chiew and Braver, 2011) is discovered between the emotion and motivation constructs from the three learning theories. In sum, understanding the emotional stability and motivational aspects of learners becomes crucial for educators.

Nonetheless, by simply understanding the emotion of learners is insufficient. Activating the positive emotions or the humanistic aspects is of utmost importance for driving the learners towards personal well-being and self-actualisation. Educators who serve as facilitators shall offer support to learners in the form of relatedness, relevancy, autonomy, and competence at all means throughout the learning journey to foster social collaboration and indirectly promote more personalised learning in 21st century classrooms. Education in the 21st century shall be learner-centered and permit learners to master the learning process, participate with their curriculum, to adapt and manoeuvre learning in their own flexible ways at any time anywhere. These ingredients are “sine qua non” for assisting the learners to move through the Zone of Approximal Development and acquire the important skills needed in the 21st century.

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