

Optimizing Student Potential Through 21st Century Learning Based on Multiple Intelligences

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ABSTRACT

Education is the foundation of societal progress, as only communities with strong awareness and high levels of education can produce quality human resources. Effective learning processes are essential to optimize students' potential. This study employs a qualitative approach through library research. Findings reveal that a knowledge-based society represents the peak of 21st-century development. In this era, human resources must be literate not only in reading, writing, and arithmetic, but also in digital skills, politics, social systems, and history. Continuous knowledge accumulation requires the ability to "learn how to learn." Managing this ability involves learning through one's best intelligence, supported by instructional designs that emphasize ways of thinking, ways of working, mastery of tools for working, and understanding life in the world. These include citizenship at local and global levels, career and life skills, and personal and social responsibility. The conclusion highlights that optimizing students' potential through multiple intelligences in 21st-century learning enables the achievement of six key competencies: communication, critical thinking, collaboration, creativity, connectivity, and character education with cultural awareness.

Keywords: *multiple intelligence, keterampilan abad 21, pembelajaran*

Introduction

Education is the main capital for the advancement of a society, because only societies that have awareness and achieve a high level of education will produce quality human resources. Quality education is achieved, among other things, through a learning process that is able to optimally spark the potential of students.

Therefore, education is a conscious and planned effort to create a learning environment and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character, and the skills needed by themselves, the community, the nation, and the state. (Act, 2003).

Among the various potentials of students, one of them is their intelligence. Intelligence is no less important than other potentials that must be developed optimally. The future of the nation lies in the hands of intelligent children. This is in line with the mandate of the nation's founders in the Preamble to the 1945 Constitution, which states that one of the goals of the nation and state is to educate the nation.

To that end, the phrase "enlightening the life of the nation" is an effort to ensure that this nation does not repeat the dark history of the past, which was full of conflict and isolation from the development of world civilization. Thus, one of the functions of education is to enlighten the life of the nation, which is mandated in the preamble to the 1945 Constitution.

Enlightening the nation's life in today's context means creating an intelligent and knowledgeable society. An intelligent and knowledgeable society is what management expert Peter F. Drucker refers to as the society of the future, namely a knowledge-based society. This term emerged in the mid-1960s and was popularized by Peter F. Drucker in his futuristic vision of a "knowledge society." (Printer, 2020).

The knowledge society is a new society that will change the nature of work, higher education, and the way society functions as a complex, interdependent system. Drucker states that the world has shifted from an "industrial-based" society to a "knowledge-based" society, meaning that the world needs highly educated human resources to compete for a limited number of jobs and to succeed in the job market. These new jobs will require a high level of education and the ability to acquire and apply theoretical and analytical knowledge. Educated people in the future will be those who have the ability to continue learning new concepts and ways of working throughout their lives. The knowledge acquired will be practical and specialized. (Juszczuk, 2006).

In 1995, Alvin Toffler emphasized the importance of the "knowledge-based society." knowledge-based society as the pinnacle of social development. In a knowledge-based society, knowledge is the core of a society's economic resources, and even a source of innovation and inspiration. (Qomaruzzaman, 2021) Therefore, innovation must be based on knowledge (*knowledge-based innovations*). Thus, knowledge-based innovation occupies the highest position. However, this knowledge is not always scientific or technical in nature. Nevertheless, knowledge-based innovation can have the same or even greater impact. (Printer, 2015).

In line with this, Peter F. Drucker explains that a knowledge society is:

“The knowledge society requires that all its members be literate, not just in reading, writing, and arithmetic, but also in (for example) basic computer skills and political, social, and historical systems. And because of the vastly expanding corpus of knowledge, it also requires that its members learn how to learn” (Printer, 2020).

A knowledge-based society requires all its members to be literate, not only in reading, writing, and arithmetic, but also in basic computer skills, political systems, social systems, and history. Because the body of knowledge will continue to grow rapidly, a knowledge-based society requires its members to be able to learn how to learn.

The ability to learn how to learn is first based on an awareness of one's own best intelligence. In this context, Gardner (2011) explains that intelligence is defined as the capacity to: (1) solve problems; (2) and create products in a context-rich and naturalistic environment. Therefore, intelligence becomes a functional concept that works in human life in various ways. Gardner provides a way to map the various abilities that humans possess into eight (8) categories of intelligence. (Gardner, 2011).

On that basis, Bahaudin emphasized that the closer or more similar a person's mental tendencies (intelligence) are to the requirements of a particular job (*mental requirement of the job*), the greater the probability of learning success and high job satisfaction. (Bahaudin, 2003).

Thus, Law No. 20 of 2003 on the National Education System (Chapter I) Article 1 states that every student in every educational unit has the right to receive education services in accordance with their talents, interests, and abilities. Government Regulation No. 19 of 2005 Chapter I (Article 26 1-3) states that the competency standards for graduates at the (primary and secondary) education levels aim to develop/improve intelligence, knowledge, personality, noble character, and skills for independent living and further education.

Therefore, students as the raw input of education must be processed in an optimal education mechanism, in accordance with their respective characteristics and potential, so that they can become quality individuals in line with the objectives of national education. (Sefrina, 2013).

Potential is often referred to as talent. The Big Indonesian Dictionary (KBBI) defines talent as intelligence, character, and disposition that one is born with. Meanwhile, in English, talent is often described as an outstanding natural ability in something or a person's ability that is above average compared to others.

Relevant to that, Gardner (2011:64) comprehensively explains that:

"Potential or talent can be interpreted as intelligence, intelligence according to Gardner is more related to the capacity to; (1) solve problems; (2) and create products in a context-rich and naturalistic environment (natural). Therefore, intelligence becomes a functional concept that works in human life in various ways. Gardner provides a way of mapping the various abilities possessed by humans into eight (8) categories of intelligence.

The author summarizes the eight categories of intelligence as follows:

1. Linguistic intelligence can be described as follows: The ability to use words effectively, both verbally and in writing. This intelligence includes the ability to manipulate syntax or language structure, phonology or language sounds, semantics or language meaning, and the pragmatic dimension or practical use of language (Armstrong, 2018).
2. Logical-mathematical intelligence can be described as follows: the ability to use numbers effectively and to reason well. This intelligence includes sensitivity to patterns and logical relationships, statements and propositions (if-then, cause-effect), functions, and abstractions and their derivatives. The types of processes used in logical-mathematical intelligence include categorization, classification, inference, generalization, calculation, and hypothesis testing. (Armstrong, 2018) I don't know what this means.
3. Spatial intelligence can be described as follows: The ability to accurately understand the visual-spatial world to transform that perception. This intelligence involves sensitivity to colors, lines, shapes, spaces, and the relationships between these elements.

This includes the capacity to visualize and graphically represent visual or spatial ideas, as well as to orient oneself accurately in a spatial matrix.(Armstrong, 2018).

4. IntelligenceKinesthetic, can be described as follows: Skill in using the whole bodyto express ideas and feelings and facility in using one's hands to produce or alter things (e.g., as a craftsman, sculptor, mechanic, or surgeon). This intelligence includes specific physical skills such as coordination, balance, dexterity, strength, flexibility, and speed, as well as other tactical abilities.(Armstrong, 2018).
5. Musical intelligence can be described as follows: The ability to understand, distinguish, transform, and express various forms of music. This intelligence includes sensitivity to rhythm, tone or melody, and tone color or pitch of musical works. A person may have an understanding of the configuration of music or "top-down" (global, intuitive), a formal understanding or "bottom-up" (analytical, technical), or even both. (Armstrong, 2018).
6. Interpersonalintelligencecan be described as follows: the ability to understand and differentiate between other people's moods, intentions, motivations, and feelings. This can include sensitivity to facial expressions, voice, and gesturesandthe capacity to distinguish between different types of interpersonal cuesas well as the ability to respond to those cues effectively in a pragmatic manner.(Armstrong, 2018).
7. Intrapersonalintelligencecan be described as follows: the ability to understand oneself and to act adaptively based on that understanding. This intelligence includes having an accurate picture of oneself (one's strengths and limitations); awareness of one's moods, intentions, motivations, temperament, and desires; and the capacity for self-discipline, self-understanding, and self-esteem. (Armstrong, 2018).
8. Naturalintelligencecan be described as follows: ability in recognizing and classifying numerous species (*flora and fauna*) from the environment itself. This also includes sensitivity to other natural phenomena, both urban environments and rural environments (Armstrong, 2018).

The author believes that intelligence is not a single, universal capacity possessed by every human being to a greater or lesser degree. It cannot be measured solely by standard verbal instruments, such as short-

answer questions, paper-and-pencil tests. As Gardner (2011) asserts:

“At the time I wrote Frames of Mind, I had not fully anticipated the extent to which most people continued to adhere to two assumptions about intelligence: first, that it is a single, general capacity that every human being possesses to a greater or lesser extent; and that, however defined, it can be measured by standardized verbal instruments, such as short-answer, paper-and-pencil tests” (Gardner, 2011).

Second, in facing the challenges of the knowledge century, as mentioned above, a knowledgeable society is also based on 21st-century skills, known as the 4 Cs (communication, critical thinking, collaboration, and creativity). (Bernie Trilling and Fadel, 2009). However, education experts later proposed an additional C, and Miller (2015) proposed two more Cs, namely connectivity and citizenship. (Woman of Grace, 2019) Meanwhile, Fullan, Quinn, and McEachen (2018) prefers the term Character Education and Culture.

Furthermore, everyone (student) has different intelligence and skills. This shows that, in essence, every individual (student) is intelligent. The difference lies in the level and indicators of their intelligence. These differences are determined by various factors. One of them is the stimulation provided at an early age. Differences in intelligence among individuals require teachers to think in a more fair and proportional manner.

Therefore, teachers need to ask themselves questions related to intelligence. Does this mean that when students do not follow instructions, they are not intelligent? Have teachers used the right way of thinking when teaching students? Are the instructions given by teachers appropriate for the age and tendencies of the students? Good teachers can detect students' intelligence by observing their behavior, tendencies, interests, methods, and quality when they react to the stimuli given.

Ideally, teachers should be able to recognize indicators of their students' intelligence, and then create intelligence profiles for them. Thus, it is necessary to analyze, first, that every student is born with extraordinary intelligence. This intelligence is not singular, but diverse; in fact, all students possess multiple intelligences. Howard Gardner, a developmental psychologist and professor at Harvard University, argues that in relation to learning and processing information, humans have 8-9 types of intelligence that can be developed.

Second, every student is unique. They have different intelligences

from one another. The view that a person's intelligence can be seen based on IQ test results is no longer relevant because IQ tests are limited to logical (mathematical) and linguistic intelligence. The theory of *Multiple Intelligences* attempts to change the view that a person's intelligence consists only of logical (mathematical) and linguistic abilities. *Multiple Intelligences* provides a view that there are eight or even nine types of intelligence that every person possesses. What distinguishes one person from another is the composition or dominance of these intelligences.

Third, diversity is an inevitability. Diversity cannot be avoided. In the context of learning, differences or diversity can be used as capital to understand reality more wisely. From this diversity, it is hoped that creative and innovative learning breakthroughs will be created so that students can develop their intelligence, thinking skills, and learning methods.

Methods

This study uses a qualitative approach through library research. This approach was chosen because the effort to formulate the concept of optimizing student potential in the 21st century requires in-depth theoretical argumentation and synthesis from various authoritative literature, not just empirical testing of variables.

The stages in this study were arranged systematically, including determining the focus, collecting primary and secondary sources, and critical analysis:

1. **Data Source:** Data was obtained through authoritative and relevant literature searches focused on the study. The main references used include Howard Gardner's fundamental works on the theoretical basis of Multiple Intelligences, Peter F. Drucker's thoughts on the knowledge-based society, and the 21st-century skills framework from the Partnership for 21st Century Skills and experts such as Bernie Trilling and Fadel.
2. **Data Collection Techniques:** Researchers used documentation techniques by reviewing various books, academic journals, and state regulatory documents. The regulatory documents that were critically examined included Law No. 20 of 2003 concerning the National Education System and Government Regulation No. 19

- of 2005 to strengthen the justification that education must serve the diverse talents, interests, and abilities of students.
3. **Data Analysis Techniques:** The collected data was analyzed using content analysis and conceptual synthesis techniques. Core concepts were rationally deconstructed to find common threads between the eight categories of intelligence and the demands of 21st-century learning design. This analysis is oriented toward proving the argument that awareness of an individual's best intelligence is a prerequisite for achieving the ability to "learn how to learn." The results of the synthesis are then formulated into four groups of perspectives—ways of thinking, ways of working, tools for working, and ways of living in the world—to achieve 6C competencies.

Results and Discussion

Multiple intelligences

Intelligence cannot be fully defined and understood. However, we can identify several forms of intellectual competence that humans possess. Therefore, we should not only emphasize or deal with the issue of knowledge possessed, but also how that knowledge is optimally acquired.

In this regard, Howard Gardner (2011) explains,

“... We might conduct every conceivable psychological test and experiment, or ferret out all the neuroanatomical wiring that we desired, and still not have identified the sought-after human intelligences. We confront here a question not of the certainty of knowledge but, rather, of how knowledge is attained at all. It is necessary to advance a hypothesis, or a theory, and then to test it. Only as the theory’s strengths—and limitations—become known will the plausibility of the original postulation become evident” (Gardner, 2011).

From this, it can be understood that there is no definitive list of human intelligence, nor will there ever be one. People can only approach such a list if they focus on a single level of analysis, such as neuropsychology, or a specific target. However, if people try to construct a complete theory of human intelligence, then any research conducted for this purpose will never reach a conclusion. For this reason, people

must first consider two main topics before discussing intelligence, namely: *First*, what requirements must be met for intelligence? and *Second*, “... *We might conduct every conceivable psychological test and experiment, or ferret out all the neuroanatomical wiring that we desired, and still not have identified the sought-after human intelligences. We confront here a question not of the certainty of knowledge but, rather, of how knowledge is attained at all. It is necessary to advance a hypothesis, or a theory, and then to test it. Only as the theory’s strengths—and limitations—become known will the plausibility of the original postulation become evident*” (Gardner, 2011).

From this, it can be understood that there is not and never will be a definitive list of human intelligence. People can only approach such a list if they focus on one level of analysis, such as neuropsychology, or one specific target. However, if people try to construct a complete theory of human intelligence, then no amount of research will ever find an answer. Therefore, two main topics must be considered before discussing intelligence, namely: *First*, what are the requirements for intelligence? and *Second*, what are the actual criteria that can be used as a basis for assessing certain competencies as intelligence? (Gardner, 2011).

First, according to Gardner, the requirement for this intelligence or intellectual competence is that it must fulfill a set of problem-solving skills. People must be able to use their intelligence or intellectual competence to solve problems or difficulties independently, or at other times be able to produce creative works, or be able to create new problems.

In this case, it also emphasizes the importance of considering a person's cultural context, which will influence their intellectual competence. For Gardner, these requirements or conditions of intelligence are a way to ensure that human intelligence is indeed useful and valuable, at least in certain cultural settings. (Gardner, 2011).

Based on these two considerations, Gardner (2011) Formulating the theory of multiple intelligences, which is generally divided into eight main types of intelligence, namely:

- 1) *linguistic intelligence*

Language skills (linguistics) are one of the skills that people learn from an early age. This is evident when students learn to pronounce or imitate the pronunciation of certain words they hear, before finally learning the

meaning of those words and connecting them in a more complex way in well-formed sentences. According to Gardner (2011), there are at least four aspects of language that demonstrate the important role of linguistic ability in human life, namely: (1) the rhetorical aspect, or a person's ability to use language to persuade others to do something. This aspect can usually be seen, for example, in politicians convincing the public to support them; (2) the mnemonic potential of language, or the ability to use language as a tool for remembering information obtained; (3) the explanatory role of language. People can explain something or teach others through language; and (4) the potential of language to explain itself, or the ability to use language to reflect on language itself or engage in metalinguistic analysis. (Gardner, 2011).

2) *musical intelligence*

Musical intelligence is generally characterized by the ability to create and appreciate rhythmic patterns, pitch patterns, or tone colors, as well as the ability to appreciate forms of musical expression. People with this type of intelligence tend to enjoy and excel at composing melodies and lyrics, singing, recognizing notes, or whistling. They will also easily recognize rhythms, learn/remember rhythms and lyrics, enjoy listening to and appreciating music, play and master various musical devices or instruments, recognize the sounds of these musical instruments, be able to read notes and produce music, clap their hands and feet, and understand musical structures. The understanding of this type of musical intelligence is largely based on the studies of Jeanne Bamberger, a musician and psychologist at MIT (Massachusetts Institute of Technology). Bamberger has researched this by combining Piaget's studies on the mind and stating that musical thinking has strict rules that cannot be equated with, for example, logical-mathematical thinking. (Gardner, 2011).

3) *logical-mathematical intelligence*

Logical-mathematical intelligence in a person is generally characterized by sensitivity in recognizing logical patterns and the ability to comprehend those patterns. This logical-mathematical ability will also develop with the ability to recognize numbers and process long trains of thought. People with this type of logical-mathematical intelligence generally tend to enjoy and be very effective at performing certain

operations or actions related to objects, such as calculating and analyzing calculations, finding functions and relationships, estimating, predicting, experimenting, constructing logical arguments and solutions, recognizing patterns, thinking inductively and deductively, generalizing or making certain lines of understanding, or skills in playing strategic games, thinking or making abstractions, and using certain algorithms. Those with logical-mathematical intelligence are not necessarily more successful in life than those who excel in other forms of intelligence. Regardless, logical-mathematical intelligence can also be learned and trained, especially by teaching children how to think scientifically, accustoming them to asking questions, conducting trials, performing basic mathematical operations, or simply playing games that require recognition of patterns, *sorting* and *ordering*, making classifications, and so on. (Gardner, 2011).

4) *spatial-visual intelligence*

Visual-spatial intelligence is a form of ability or capacity to accurately perceive the visual world, or to transform and modify one's initial perceptions and be able to recreate visual experiences in their entirety even without relevant physical stimuli. Those who possess this type of spatial-visual intelligence generally have a tendency or enjoyment of certain architectural objects such as buildings and decorations, or have a good eye for design or floor plans. Those with spatial intelligence also enjoy and are very effective at creating and reading charts or graphs, reading directions and maps or navigation, tabulation and color coordination, or producing certain physical works such as sculptures, creating and interpreting graphics, interior design, and being able to imagine certain objects in detail even without the direct presence of the object in question. This group also generally enjoys and is capable of producing certain works of art such as paintings and sketches, and is skilled at games that require spatial arrangement, manipulating shapes, and creating certain imaginative shapes based on their visual experiences.(Gardner, 2011).

5) *Bodily-Kinesthetic Intelligence*

Bodily-kinesthetic intelligence is a type of intelligence that has developed in humans over thousands of years. Kinesthetic intelligence is

the ability to move and use the body and its parts to the fullest, both for aesthetic and athletic purposes. This intelligence also includes the ability to find balance and move with a certain rhythm that is more flexible, agile, and adaptive. The ability to maximize the body and use it for specific purposes shows that the brain, as the center of thought, also has a specific part that controls bodily functions. Those who possess this type of kinesthetic intelligence can generally be identified by their ability to control body movements and their proficiency in manipulating certain objects with their bodies. Someone who is optimal in this kinesthetic intelligence will have a tendency to like and be effective in expressing themselves through facial expressions or style, exercising, moving their body aesthetically such as dancing and choreographing dances, having the power and ability to maximize fine or gross motor skills, having good hand-eye coordination, and having optimal physical endurance. Kinesthetic intelligence also enables a person to easily learn to manipulate objects with their body parts, display flexible and graceful body posture and movement, or skillfully use body language to communicate.(Gardner, 2011).

6) *Intrapersonal Intelligence*

Personal intelligence is a person's ability to be aware of themselves and their life, which manifests itself in the form of the ability to recognize and influence emotions, the ability to discriminate between various feelings, and to use this as a guide for action. Personal intelligence (*personal intelligence*), often referred to as interpersonal intelligence, is characterized by a person's ability to understand and respond appropriately to moods, specific emotions, motivations, and desires of others. People who possess this type of personal intelligence generally tend to enjoy and be very skilled at nurturing and educating others, communicating permissively, interacting appropriately, empathizing and sympathizing, leading and organizing groups or communities, influencing others, resolving and mediating conflicts or disputes, respecting the opinions and rights of others, seeing things from various perspectives, being sensitive or perceptive to the interests and motives of others, and being reliable when working in a team.(Gardner, 2011).

7) *Interpersonal Intelligence*

Intrapersonal intelligence leads to the ability to act adaptively and skillfully position oneself in reactions with others. (Gardner, 2011) Interpersonal intelligence is the ability to understand and differentiate between other people's moods, intentions, motivations, and feelings. This can include sensitivity to facial expressions, voice, and gestures, as well as the capacity to distinguish between different types of interpersonal cues and the ability to respond to those cues effectively in a pragmatic manner. (Armstrong, 2018).

8) *Natural Intelligence*

Naturalistic intelligence is generally characterized by a person's ability to distinguish between members of a species, recognize the existence of other species, and map the relationships between several species, both formally and informally. A person with prominent naturalistic intelligence has a tendency or enjoyment of the world of plants and animals (biological themes), is skilled at classifying animals and plants (fauna and flora), enjoys gardening and/or raising certain animals, is able to recognize and understand patterns found in nature even at a detailed level, can calculate certain phenomena such as weather, and are disciplined in maintaining environmental cleanliness and health. Those with naturalistic intelligence will enjoy learning methods that involve outdoor activities, exploring objects found in nature, or interacting directly with living creatures in nature. (Gardner, 2011).

Keterampilan Abad 21

The 21st century, as described by Peter F. Drucker, is an era in which knowledge and technology have become deeply ingrained.

“The fact that the new technologies are not based on science alone but on the new knowledge in its entirety also means that technology is no longer separate and outside culture, but an integral part thereof. Civilization has, of course, always been shaped by technology” (Drucker, 1970).

This description indicates that the 21st century is referred to as the age of knowledge. Furthermore, Drucker (1994), in another work, emphasizes that this century makes knowledge a force (knowledge is power). Thus, in this century, science has become the main pillar

supporting human life. The various developments in human intellect that have accumulated in the development of science mean that societies that cannot learn or do not have access to information will only become backward and underdeveloped societies.

In line with this, the Partnership for 21st Century Skills has identified 21st century skills into four groups, namely: (1) key subjects and 21st century themes; including reading or language arts, world languages, arts, mathematics, economics, science, geography, history, government, and citizenship. Then added with global awareness, financial literacy, economics, business and entrepreneurship, civic literacy, health literacy, and environmental literacy. (2) learning and innovation skills; including creativity and innovation, critical thinking and problem solving, communication, and collaboration, referred to as the 4Cs. Information, (3) information, media, and technology skills; including information literacy, media literacy, ICT (information, communication, and technology) literacy, and (4) life and career skills; including flexibility and adaptability, initiative and self-direction, social and cross-cultural skills, productivity and accountability, and leadership and responsibility (Partnership for 21st Century Skills, 2015).

Meanwhile, Patrick Griffin and Barry McGaw organized them into ten skills, which are contained in four groups, as follows: (1) Ways of thinking, including creativity and innovation, critical thinking, problem solving, decision making, learning how to learn, and metacognition; (2) Ways of working, including communication, collaboration (teamwork); tools for working, including information literacy and ICT literacy; and (4) Living in the world, including citizenship; local and global, life and career, and personal and social responsibility, including cultural awareness and competence (Griffin, McGaw, and Care, 2012).

21st century skills are referred to as generic skills (soft skills), which are a set of abilities and competencies that are important for success in today's challenging and complex world. The rationale for developing these skills lies in the understanding that today's economy, technology, and society are changing rapidly, requiring individuals to have broader and more adaptive skills than ever before. The development of information technology, globalization, and changing social dynamics have transformed the landscape of work and market needs. Therefore, individuals need to have more flexible and multifaceted abilities to adapt

to these changes. 21st Century Skills aim to equip individuals with the ability to think critically, collaborate, innovate, and communicate effectively, so that they can succeed in various contexts, both in their careers and daily lives. These skills help individuals become better prepared to face future challenges and become productive and contributing members of society (Kemdikbud, 2017).

There are several important aspects and characteristics related to 21st century skills:

- a. **Creativity and Innovation:** Creativity involves the ability to generate new ideas, think outside the box, and see opportunities in challenges. Innovation is the next step, which is taking creative ideas and applying them in real action. Creativity and innovation are important in solving complex problems and creating more efficient solutions (Bernie Trilling and Fadel, 2009).
- b. **Critical Thinking Skills:** Critical thinking skills include in-depth analysis of information received, objective evaluation of arguments, and the ability to recognize bias. These skills can help individuals make decisions based on strong evidence and data (Bernie Trilling and Fadel, 2009).
- c. **Communication Skills:** Effective communication skills include not only the ability to speak and write clearly, but also the ability to listen well. Media literacy is the ability to understand and analyze media messages (Bernie Trilling and Fadel, 2009).
- d. **Collaboration Skills:** The ability to work together in a team is a key aspect of 21st-century skills. It involves the ability to listen, share ideas, provide constructive feedback, and achieve common goals. Effective collaboration can produce better solutions than individual efforts (Bernie Trilling and Fadel, 2009).
- e. **Lifelong Learning:** The world is constantly changing, so the ability to continue learning and adapting is very important. Individuals need to develop independent learning skills and have the drive to improve their skills throughout their lives (Bernie Trilling and Fadel, 2009).
- f. **Complex Problem-Solving Skills:** In a complex and rapidly changing world, the ability to solve problems that do not have simple solutions is invaluable. This involves systemic thinking and in-depth analysis (Bernie Trilling and Fadel, 2009).

- g. **Technological Competence:** The ability to use information and communication technology (ICT) efficiently. In the digital age, the ability to use information and communication technology (ICT) efficiently is a must. This includes operating software, accessing information online, and using digital tools in daily work (Bernie Trilling and Fadel, 2009).
- h. **Digital Literacy:** In an increasingly connected world, digital literacy is an essential skill. Digital literacy encompasses understanding how to use digital technology ethically, safely, and responsibly. It also involves protecting online privacy and understanding the risks associated with the internet (Bernie Trilling and Fadel, 2009).

The main challenge in developing 21st Century Skills is integrating them into education and training systems, as well as ensuring that individuals from various backgrounds and educational levels have access to relevant training and learning. Teaching 21st Century Skills must also follow an interactive, practical, and contextual approach to provide students with a deep learning experience. Efforts to develop these skills involve collaboration between educational institutions, government, and the private sector to create an environment that supports the development of these skills throughout an individual's life. By possessing strong 21st Century Skills, individuals will be better prepared to face future changes and contribute to the development of society and the wider world..

Conclusion

Education is a conscious and planned effort to create a learning environment and learning process that enables students to actively develop their potential. Optimizing the potential of learners is based, at least, on the challenges and needs of the 21st century, which require human resources to be literate, not only in reading, writing, and arithmetic, but also in basic computer skills, political systems, social systems, and history. As the body of knowledge continues to grow rapidly, a knowledgeable society requires its members to be able to learn how to learn.

The ability to learn how to learn is first based on an awareness of one's own best intelligence. Gardner provides a way of mapping the various abilities possessed by humans into eight (8) categories of intelligence; (1) Linguistic intelligence; (2) Logical-mathematical

intelligence; (3) Visual-spatial intelligence; (4) Kinesthetic intelligence; (5) Musical intelligence; (6) Intrapersonal intelligence; (7) Interpersonal intelligence; and (8) Naturalistic intelligence. These eight categories of intelligence are developed through 21st-century learning designs contained in four groups; (1) Ways of thinking, including creativity and innovation, critical thinking, problem solving, decision making, learning how to learn, and metacognition; (2) Ways of working, including communication, collaboration (teamwork); tools for working, including information literacy and ICT literacy; and (4) Living in the world, including citizenship; local and global, life and career, as well as personal and social responsibility, including cultural awareness and competence. To achieve the 6 Cs of 21st-century skills; (1) communication; (2) critical thinking; (3) collaboration; (4) creativity; (5) connectivity; (6) character education and culture.

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