Educate
JURNAL TEKNOLOGI PENDIDIKAN
P-ISSN 2527-7677
E-ISSN 2614-8331
Vol. 10, No.2, JULY 2025, hlm. 241-273 DOI: 10.32832/educate.v10i2.19945

PORTRAIT OF STUDENTS' READINESS OF SMA NEGERI 1 JAMPANG TENGAH SUKABUMI IN FACING FUTURE CHALLENGES

Nurhayati[1*]
[1]Educational Technology Study Program Postgraduate School of Ibn Khaldun University Bogor Indonesia
*bunda.ati1962@gmail.com

Abstrak

Mental preparation for the future is an important factor in forming a resilient and adaptive generation, especially in facing the rapid digital transformation. While students show high motivation to achieve success, several non-academic challenges remain significant challenges to developing optimal mental readiness.This study aims to analyze the influence of various factors on students' mental readiness for the future, including academic skills, social skills, adaptability, critical thinking, social awareness, technology mastery, self-development awareness, and soft skills. This study uses Partial Least Squares Structural Equation Modeling (PLS-SEM) with a sample of 305 students. Data were collected using a questionnaire and analyzed using Smart PLS 3.0.The results of the study revealed that only four of the seven exogenous constructs significantly influenced students' mental readiness: such as technological mastery ($\beta = 0.401$; $p < 0.001$), adaptability ($\beta = 0.307$; $p < 0.001$), soft skills ($\beta = 0.233$; $p < 0.001$), and self-development awareness ($\beta = 0.135$; $p < 0.05$). In contrast, academic skills, critical thinking skills, and social skills did not show significant direct effects. These findings underscore that students' future readiness is more strongly shaped by affective dimensions and 21st century skills than traditional academic competencies.Therefore, educational strategies must shift towards strengthening students' ability to integrate technology, adapt to change, develop self-awareness, and master interpersonal competencies. This shift is critical to nurturing mentally resilient individuals, able to navigate the complexities and uncertainties of the future.

Keywords: *High School Students' Readiness, Future Challenges, Self-Development.*

Submitted: 16-05-2025 Approved: 07-07-2025 Published: 25-07-2025

Citation: Nurhayati. (2025). Portrait Of Students' Readiness Of SMA Negeri 1 Jampang Tengah Sukabumi In Facing Future Challenges. Educate: Jurnal Teknologi Pendidikan, 241-273.

I. Pendahuluan

The future is full of uncertainty and change, requiring the younger generation to have a variety of skills beyond academic proficiency. In the context of globalization and rapid technological development, students' readiness to face future challenges is becoming increasingly crucial. Students are expected to be able to adapt quickly, think critically, and have the ability to solve complex problems. SMA Negeri 1 Jampang Tengah Sukabumi, as an educational institution, has a great responsibility in preparing students to face challenges. However, students' readiness to face the dynamics of the future is still limited to the academic aspect, not touching on the realm of technological mastery, soft skills, and the mental resilience needed.

This study focuses on efforts to capture the readiness of students of SMA Negeri 1 Jampang Tengah Sukabumi from various aspects, such as: academic skills, critical thinking skills, mastery of technology, adaptability, and soft skills which are important factors in the world of work in the future. Understanding student readiness is not only for the benefit of the students themselves, but also for schools and stakeholders in designing more relevant and responsive programs. Thus, this study is expected to provide a real contribution in efforts to improve the quality of education in accordance with the demands of the times. This study aims to (1) identify the level of readiness of students of SMA Negeri 1 Jampang Tengah Sukabumi in facing future challenges from academic aspects, technology mastery, soft skills, and mentality. (2) analyze the supporting and inhibiting factors that influence student readiness in facing global challenges.

This study provides a new contribution with a multidimensional approach in evaluating students' readiness to face future challenges. Not only focusing on academic abilities, this study also explores non-academic aspects, such as: mastery of technology, soft skills, and mental resilience which are often overlooked in previous studies of student readiness. This study is unique because it provides a specific picture of the readiness of students at SMA Negeri 1 Jampang Tengah Sukabumi, which can be a representation of schools with their unique challenges. The results of the study offer practical guidance for the development of a more integrated, relevant, and adaptive curriculum and school programs to the demands of the times, so as to better prepare students for the future.

The future is the time that is to come, where the time after the present, its arrival is considered inevitable because of the existence of space and time. As a result of the apparent and inevitable nature of reality, future planning is the key to achieving a successful and fulfilling life. Without a structured plan, one may have difficulty achieving goals or feel lost in the direction of life. In the context of everyday life, the future can be prepared by: paying attention to changes in the world quickly, adapting to changes in the world, having certain competencies to adapt and develop.

To face the future, students must at least have: First, resilience in an education full of uncertainty. Ways to develop resilience by: teaching values, such as: honesty, perseverance, cooperation, responsibility, providing opportunities to take the initiative, teaching to solve problems, fostering the ability to adapt and recover in facing future challenges (resilience) emotionally. Second, student skills can be developed according to what is needed to face the future, such as: creativity, discipline, self-confidence, collaboration, communication, time management, and technology. Third, student character has a leadership and initiative spirit and tends to be more proactive in taking responsibility. Fourth, a classroom environment that supports students can develop skills, such as: fun, conducive, and fostering empathy.

II. Theoretical Review

A. Academic skills studying time management, digital literacy, teamwork, public speaking, and critical thinking are essential competencies in education and professional life. Several theories support the development of these skills, namely:

1. Time Management

Time management is the ability to organize, use and control time effectively and efficiently to achieve predetermined goals, the theories that contribute to this field include:

The Eisenhower Matrix, developed by Dwight D. Eisenhower, former President of the United States, this matrix helps individuals prioritize tasks based on their level of importance and urgency. Tasks are divided into four quadrants, important and urgent, important but not urgent, not important but urgent, and not important and not urgent.

The Getting Things Done (GTD) method, introduced by David Allen in his book "Getting Things Done" (2001), this method emphasizes the importance of recording all tasks and projects, clarifying the actions needed, organizing information systematically, conducting regular reviews, and carrying out tasks based on priorities.

The Pareto Principle (80/20), by Vilfredo Pareto popularized by Tim Ferriss in his book "The 4-Hour Workweek" (2007), this principle states that 80% of results come from 20% of efforts. Therefore, focusing on tasks that provide the greatest impact is highly recommended. ideinspirasi.com

Time Management Theory by G.R. Terry, defines management as a process consisting of planning, organizing, motivating, and supervising carried out to achieve predetermined goals. This approach emphasizes the importance of planning and organizing in time management. (repository.uin-suska.ac.id).

2. Digital Literacy

Traditional literacy refers to the ability to read and write. However, in the modern context, literacy encompasses various aspects: Information Literacy by Christine Bruce (1997). states that information literacy is the ability to access, evaluate, and use information effectively. This is important in an era where information is available in large quantities and in various formats.

Digital Literacy by Paul Gilster (1997), introduced the concept of digital literacy as the ability to understand and use information from various digital sources. includes an understanding of how digital technology works and the ability to navigate and evaluate information found online. (etheses.iainkediri.ac.id)

Digital Literacy and Critical Thinking. according to Tejedor (2020), digital literacy not only involves the use of information and communication technology, but also the application of social skills, critical thinking, imagination, and ideas. This shows that digital literacy plays an important role in developing individuals' critical thinking skills. (repository.unpas.ac.id)

Digital Literacy for Academic Purposes, a study by Ukwoma, Iwundu, and Iwundu (2016) examined the digital literacy skills possessed and used by University of Nigeria Nsukka (UNN) students to complete academic work. The results of the study showed that good digital literacy skills can improve academic performance. (jurnal.kominfo.go.id)

Digital Literacy and Critical Thinking Development, according to Martin (2008), digital literacy is an individual's ability to use digital tools appropriately, so that they are facilitated to access, manage, integrate, evaluate, and analyze digital resources in order to build new knowledge, create media for expression, and communicate with others in certain life situations to realize social development. This shows that digital literacy plays a role in the development of critical thinking and problem-solving skills. (researchgate.net)

Digital Literacy and Curiosity, a study by Rini, Suryadinata, and Efendi (2022) shows that curiosity and self-determination have a positive and significant effect on students' digital literacy. This emphasizes the importance of internal motivation in developing digital literacy skills. (journal.uny.ac.id)

3. Teamwork

Teamwork involves collaboration between group members to achieve a common goal, some theories that support the development of teamwork skills include:

Meredith Belbin's Role Theory identifies nine different roles in a team, such as coordinator, shaper, improver, finisher, team worker, resource seeker, implementer,

monitor, evaluator, and specialist. Understanding these roles helps teams optimize performance by leveraging the strengths of each member.

Bruce Tuckman's (1965) Formation Stages Model suggests that teams develop through five stages: forming, storming, norming, performing, and adjourning. Understanding these stages helps teams manage group dynamics effectively.

4. Public Speaking

Public speaking is the skill of conveying ideas and information effectively, some theories that contribute to this field include:

The Rhetorical Theory of Aristotle (4th century BC) an ancient Greek philosopher, in his work "Rhetoric" emphasizes three main components in public speaking: ethos (speaker's credibility), pathos (audience emotions), and logos (logic or argument). This approach emphasizes the importance of building credibility, connecting emotionally with the audience, and presenting logical arguments

Dale Carnegie's Public Speaking Communication Model in his book "How to Win Friends and Influence People" (1936), provides practical guidance on how to speak in public, including the importance of preparation, confidence, and understanding the audience. This book is a classic reference in developing communication skills.

5. Critical Thinking Skills

Critical thinking is the ability to analyze information objectively and make reasoned judgments. The theories that contribute to this field include:

Critical Thinking by John Dewey, a philosopher and educator (1910) defines critical thinking as "the active, persistent, and careful consideration of a belief or form of knowledge taken for granted, in the light of the reasons that support it and the further conclusions to which it tends." This definition emphasizes the importance of evaluation and analysis in the critical thinking process. (media.neliti.com)

Critical Thinking Skills in Education by the National Council for the Social Studies (1994): This organization emphasizes that teachers not only deliver curriculum content but also provide opportunities for students to think and communicate in ways that help build deep understanding. (repository.upi.edu)

The development of academic skills requires a holistic approach that includes theoretical and practical learning, as well as support from a conducive educational environment. Skill development requires continuous practice and a deep understanding of the underlying theories. By mastering time management, teamwork, and public speaking, individuals can increase effectiven ess and productivity in many aspects of life.

B. Social skills include various abilities that enable individuals to interact and communicate effectively with others. The theories that support the development of social skills include: verbal and nonverbal communication, empathy, conflict resolution skills, adaptability, cooperation and collaboration, and self-esteem.

1. Verbal and Nonverbal Communication

Verbal communication involves the use of words in spoken or written form, while nonverbal communication includes facial expressions, body language, eye contact, and voice intonation. These two forms of communication complement each other in conveying messages effectively.

Theory of Nonverbal Communication by Albert Mehrabian (1971): states that in face-to-face communication, 7% of the message is conveyed through words (verbal), 38% through voice intonation, and 55% through facial expressions and body language (nonverbal). This shows the dominance of nonverbal communication in conveying emotions and attitudes. (idoc.pub)

2. Empathy

Empathy is the ability to understand and feel the feelings of others as if in their shoes. Empathy plays an important role in building healthy and effective interpersonal relationships.

The Empathy Theory by Carl R. Rogers (1957) a humanistic psychologist, emphasizes the importance of empathy in therapeutic relationships. He defines empathy as the ability to accurately understand the client's internal world, which helps build a trusting relationship and supports the healing process.

3. Conflict Resolution Skills

Conflict resolution skills are the skills to identify, manage, and resolve disputes constructively. These skills are important for maintaining harmonious relationships in various social contexts.

The Conflict Resolution Model by Kenneth Thomas and Ralph Kilmann (1974) developed a model that identifies five conflict resolution styles: competing, collaborating, compromising, avoiding, and accommodating. The selection of the right style depends on the situation and the relationship between the parties involved.

4. Adaptability

Adaptability is the capacity to adjust to changes and new situations effectively. This skill enables individuals to face the challenges and dynamics of a constantly changing environment.

The Adaptive Intelligence Theory by Jean Piaget (1970) a developmental psychologist, suggests that adaptation involves two main processes: assimilation and accommodation. Assimilation is the process of incorporating new information into an existing schema, while accommodation is the adjustment of an existing schema to accommodate new information. Both of these processes enable individuals to adapt to the environment.

5. Cooperation and Collaboration

Cooperation and collaboration involve joint efforts between individuals or groups to achieve common goals. These skills are essential in a variety of settings, including the workplace, education, and community.

Social Interdependence Theory by Morton Deutsch (1949): suggests that the outcomes of interactions between individuals are influenced by how their goals relate to each other. If individuals' goals are positively interdependent, they will tend to cooperate; conversely, if they are negatively interdependent, they may compete. This theory emphasizes the importance of goal structure in encouraging cooperation and collaboration.

6. Self-Esteem

Self-esteem is an individual's assessment of his or her own worth and competence. A healthy level of self-esteem contributes to mental well-being and the ability to interact positively with others.

Morris Rosenberg's Self-Esteem Theory (1965): developed the Rosenberg Self-Esteem Scale, a widely used tool to measure an individual's level of self-esteem. He defined self-esteem as a person's positive or negative attitude toward himself or herself, which influences how the individual interacts with the world around him or her.

Developing social skills requires theoretical understanding and consistent practice. By mastering various aspects of social skills, individuals can improve the quality of interactions and achieve success in various areas of life.

C. Critical Thinking Skills

Critical thinking is an intellectual process in which an individual deliberately assesses the quality of his/her thinking using objective, reflective, independent, clear, and rational thinking. This process involves cognitive processes to deeply analyze information, evaluate arguments, draw conclusions, and make logical decisions. Critical thinking skills are essential in the digital age, where information is spread quickly and is not always reliable. Unlike routine thinking that tends to be automatic and based on habits, critical thinking requires awareness and active effort in listening to every aspect of a problem.

The main points in critical thinking include:

1. Thinking objectively and fairly is the ability to assess information and arguments without being influenced by personal bias or prejudice.
2. Awareness of the possibility of bias, realizing and identifying the possibility of bias, both from oneself and the source of information, so that steps can be taken to minimize it.
3. Identifying related arguments, being able to recognize and understand various arguments related to a problem, including those that may be contradictory, to get a comprehensive picture.
4. Evaluate the validity of arguments, assess whether the arguments presented are supported by strong evidence and consistent logic, and identify errors in reasoning or fallacies.
5. Assess the quality of thinking, critically assess the quality of one's own and others' thinking, including clarity, accuracy, relevance, and depth of analysis.
6. Reflective and independent thinking is reflecting back on the thinking process that involves deep reflection on one's own assumptions and beliefs, and the ability to think independently without being influenced by external pressures. and decisions taken for future improvement
7. Clear and rational thinking, using logic and clear reasoning in analyzing information and making decision

Supporting the above points in the updated critical thinking:

1. The ability to ask appropriate and relevant questions is the basis of critical thinking. By asking questions, you can dig deeper into information and understand the context as a whole.
2. After asking questions, the next step is to look for evidence that supports or refutes the information received, involving research and verification of facts to ensure the accuracy of the information.
3. It is important to recognize bias in information, both from the source and from yourself. Awareness of bias helps to assess information more objectively and prevent wrong decision making.
4. The ability to assess the strengths and weaknesses of arguments is essential in critical thinking, involving the analysis of the logic, consistency, and relevance of the arguments presented.
5. Being open to multiple perspectives, allowing for consideration of multiple viewpoints before drawing conclusions. This prevents narrow-mindedness and helps in making wiser decisions. literarasainstitute.org
6. Evaluating thoughts and decisions that have been taken helps to learn from experience and improve critical thinking skills in the future. cnnindonesia.com
8. The ability to adapt to changing information and situations shows flexibility in thinking, allowing for adjustments to understanding and decisions based on the latest information. (cnnindonesia.com)

By understanding and developing the above points, individuals can improve their critical thinking skills, which are essential in making the right decisions and solving problems effectively.

The concept of critical thinking has been discussed in various academic literature. One of them is the work of Dr. Bhisma Murti entitled "Critical Thinking", published by the Faculty of Medicine, Sebelas Maret University in 2007. In this book, Dr. Murti emphasizes the importance of critical thinking as an intellectual process that involves assessing the quality of thinking through a reflective and rational approach. (fk.uns.ac.id)

The definition of critical thinking is put forward by Ennis, that critical thinking is reasonable and reflective thinking, focused on decisions about what to believe or do. Ennis identifies five key elements in critical thinking: practical, reflective, rational, reliable, and action. (repository.upi.edu)

One of the studies relevant to critical thinking is "Meta Analysis of the Effect of Problem Based Learning Models on Students' Critical Thinking Skills" by Laura Aliyah Agnezi and Siti Rahmah, published in the Journal of Physics Research and Learning, Vol. 6 No. 2, in December 2020. This study analyzes the effect of problem-based learning models on improving students' critical thinking skills. The results show that the approach is effective in developing critical thinking skills. (ejournal.unp.ac.id)

In addition, the article "Analysis of Factors Affecting Students' Critical Thinking Skills in Economic Learning in the Era of Revolution 4.0" by Dede Muhamad Ramdani and Sari Saprudin, published in the Journal of Sosio Didaktika, Vol. 7 No. 1, in June 2020, discusses the importance of critical thinking in the context of economic learning. This study emphasizes that critical thinking skills are essential to face challenges in the era of the Industrial Revolution 4.0. (journal.uny.ac.id)

D. Soft Skills

Soft skills development is crucial in an ever-evolving world, where the ability to adapt and interact with various individuals is the key to success. Therefore, educational institutions and professional organizations are advised to pay special attention to the training and development of soft skills for their members.

Soft skills are a series of non-technical skills related to an individual's ability to interact effectively with others and manage themselves. These skills include communication, cooperation, leadership, adaptability, and emotional intelligence. Unlike hard skills that focus on technical competence or specific knowledge, soft skills emphasize more on interpersonal and intrapersonal aspects that support individual success in various contexts, including work and social environments.

According to Hakim (2016), soft skills include interpersonal skills, such as the ability to relate to others, and intrapersonal skills, such as the ability to manage oneself, which contribute to a person's optimal performance. repository.unpas.ac.id

Elfindri and colleagues in the book "Soft Skills for Educators" (2011) emphasize that the development of soft skills in the educational process is very important. suggest the integration of soft skills into the educational curriculum to shape students' character and social skills. (eprints.uny.ac.id)

The Soft Skills component in the book "Lesson From The Top" by Neff and Citrin (1999) identifies that self-quality included in soft skills, such as the ability to interact with others, is more decisive in determining a person's success than technical skills alone. (jurnal.stieama.ac.id)

In the journal "Contribution of Soft Skills in Growing" published by STIE AMA, it is discussed that soft skills can be developed through various methods, including training, practical experience, and project-based learning. (jurnal.stieama.ac.id)

The Influence of Soft Skills on Work Readiness: Research by Ratuela, Nelwan, and Lumintang (2022) in "EMBA Journal" examines the influence of hard skills, soft skills, and self-efficacy on the work readiness of final year students in the Management Department, FEB, Sam Ratulangi University. The results of the study indicate that soft skills have a significant role in preparing students to enter the workforce. (ejournal.unsrat.ac.id)

The Impact of Soft Skills in the Industrial Era 4.0: Ayaturrahman and Rahayu (2023) in the journal "National Conference of Accounting & Finance" discuss the importance of soft skills for students in the Industrial era 4.0. emphasize that mastery of soft skills, such as effective communication and adaptability, is key to improving work readiness amidst rapid technological developments. (journal.uii.ac.id)

Soft Skills Education and Student Careers, Deryane and colleagues (2023) in "Edukatif: Jurnal Ilmu Pendidikan" examine the influence of soft skills education on students' career paths. The study found that developing soft skills during college significantly contributes to students' future career success. (pendidikan.org)

Implementation of Soft Skills in the Independent Curriculum, Mahmudah (2023) in "TARUNAEDU: Journal of Education and Learning" discusses the improvement of soft skills through the implementation of the Independent Curriculum. This article highlights the importance of integrating soft skills into the education curriculum to prepare students to face global challenges. (journal.staitaruna.ac.id)

Analysis of Soft Skills and Self-Efficacy, Widiyawati, Syamsuri, and Sari (2024) in the journal "Mirai Management" analyzes the influence of soft skills and self-efficacy

on students' work readiness in the Industrial Revolution 4.0 era. The results of the study show that the combination of soft skills and high self-confidence significantly increases students' work readiness. (journal.stieamkop.ac.id)

E. Mastery of Information Technology (IT) refers to an individual's ability to understand, operate, and utilize various devices, especially computers, in various activities and technology systems to manage information effectively. This ability includes an understanding of how hardware, software, networks, and applications work that support the processing and distribution of information.

Definition of Mastery of Information Technology, according to Munir (2009), information and communication technology includes everything that supports the process of recording, storing, processing, retrieving, delivering, and receiving information. This definition emphasizes the importance of understanding and practical skills in utilizing information technology in various contexts. (eprints.uny.ac.id)

According to sources published by the State Islamic University of Sultan Syarif Kasim Riau, mastery of technology and information is the ability to understand and use information technology tools, especially computers. This definition emphasizes the importance of understanding and practical skills in utilizing information technology in various contexts. (repository.uin-suska.ac.id)

One of the relevant theories in understanding mastery of information technology is the Technology Acceptance Model (TAM) introduced by Davis in 1989. TAM is designed to explain how users understand and use information technology. This model emphasizes two main factors that influence technology acceptance:

1. Perceived Usefulness, the extent to which individuals believe that using technology will improve performance.
2. Perceived Ease of Use, the extent to which individuals believe that using technology will be free from hard work.

In the context of mastering information technology, TAM helps explain that individuals tend to master and accept technology more quickly if they feel the technology is useful and easy to use. This is supported by research published in the Journal of Business Administration Vol. 6 No. 2 of 2018, which states that the perception of usefulness and ease of use have a significant effect on the acceptance and mastery of information technology by users. media.neliti.com

Life, including education, business, and communication. This ability allows individuals to:

1. Increase Work Efficiency by utilizing technology, tasks can be completed faster and more accurately.

2. Wider Access to Information, information technology opens access to previously unreachable global resources and information.
3. More Effective Communication, enables real-time communication with individuals or groups in various locations.

In a world that continues to develop and transform digitally, mastery of information technology is no longer an option, but a basic need to participate and compete effectively.

In everyday life, humans are faced with various changes and challenges, both in the work environment, education, social, and personal life. A person's ability to adjust to change is called adaptability. This is not just a skill, but also a mental attitude that allows a person to survive, develop, and succeed even when facing unexpected situations.

Adaptability can be studied from the Definition, Aspects, and Views of Experts

1. Definition of Adaptability

Adaptability is the skill, ability of a person or a system in facing and adapting to changes that occur in the surrounding environment, situations, or new conditions. People who have good adaptability are not only able to accept change, but are also able to respond to it effectively by thinking flexibly, managing their emotions, and finding the right solutions in facing new challenges. Adaptation can be physical, psychological, social, or cognitive. In the context of an individual, adaptability allows a person to face new challenges, overcome obstacles, and remain productive in various conditions.

For example, a teacher who is used to teaching using conventional methods must be able to adapt when the learning system switches to digital methods. teachers need to learn to use new technology, interact with students through online platforms, and find effective ways to continue to provide interesting teaching.

2. Adaptability includes various interrelated aspects, including:
   a. Cognitive Flexibility, someone who has cognitive flexibility is able to see a problem from various perspectives and adjust their thinking strategy when faced with changing situations. Example: An entrepreneur who previously only sold offline must be able to adapt to e-commerce trends in order to remain competitive in the market.
   b. Emotional Regulation, managing feelings and emotions well when faced with change is an important part of adaptability. Example: A student who fails an

exam does not just give up, but instead looks for a more effective learning strategy to succeed the next time.

c. Social Skills, the ability to adjust how to interact with others in various situations and different environments. Example: An employee who is transferred to a branch office in another city must be able to adapt to a different work culture from the previous place.
d. Resilience is the ability to bounce back after facing failure or difficulties. Example: An athlete who suffers a serious injury does not give up, but continues to try to recover and return to training with enthusiasm.
e. Proactive and Initiative Attitude, people who have high adaptability not only react to change, but also actively seek ways to deal with it. Example: A company leader who sees industry trends changing will immediately seek new strategies to ensure the business continues to grow.

3. Experts' Views on Adaptability

Experts have long researched and developed theories on adaptability, including:

a. Jean Piaget (1896-1980) in his Theory of Cognitive Development explained that adaptation occurs through two main mechanisms, namely assimilation (adjusting new information to existing knowledge) and accommodation (changing old understanding to suit new information). Example: A small child who learns that not all round objects are balls, but some are oranges or marbles.
b. Charles Darwin (1809-1882), The Theory of Evolution states that only individuals or species that are able to adapt will survive environmental changes. An example in human life: Technology is developing rapidly, and only people who are willing to learn new technologies can remain relevant in the world of work.
c. Robert J. Sternberg in the Triarchic Intelligence Theory argues that practical intelligence is a form of intelligence that allows a person to adapt well in everyday life. Example: A worker who moves to another country is able to adapt to a new culture and remain productive.
d. Daniel Goleman in the Theory of Emotional Intelligence states that high followed by his subordinates.e. Carol Dweck in Growth Mindset explains that individuals with a growth mindset are more adaptable because they see

challenges as opportunities to learn, not as obstacles. Example: A student who has difficulty understanding a subject does not give up, but instead looks for new ways to learn it more effectively.

The ability to adapt is very important in a world that continues to develop rapidly, in various aspects of life, including:

a. World of Work, adapting to technology, systems, and work cultures that continue to change.
b. Education, dealing with changes in curriculum, learning methods, and academic challenges.
c. Social, interacting with groups that have different values and cultures.
d. Mental Health, managing stress and dealing with changes in life

Adaptability is important because it helps to deal with unexpected changes, increases the chances of success in career and personal life, strengthens mental resilience in the face of stress, helps one stay relevant in the ever-evolving world of work, improves social relationships and communication skills with various groups.

As a real example, during the COVID-19 pandemic, many people have been taught the importance of adaptability. Many companies that initially relied on face-to-face meetings were forced to switch to a remote work system (remote work). Employees who are able to quickly adapt to new technologies such as Zoom or Google Meet remain productive and are not left behind by change.

Adaptability is important because it helps to deal with unexpected changes, increases the chances of success in career and personal life, strengthens mental resilience in the face of pressure, helps someone stay relevant in the ever-evolving world of work, improves social relationships and communication skills with various groups.

As a real example, during the COVID-19 pandemic, many people have been taught the importance of adaptability. Many companies that initially relied on face-to-face meetings were forced to switch to a remote work system (remote work). Employees who are able to quickly adapt to new technologies such as Zoom or Google Adaptability can be developed in several ways, including:

1. Dare to try new things - Don't be afraid to get out of your comfort zone and face new challenges.
2. Continuous learning - Always update your knowledge and skills so as not to be left behind by the times.
3. Manage stress well - Practice relaxation techniques such as meditation or exercise to stay calm in the face of change.

4. Improve social skills - Build good communication with various groups and environments.
5. Have a growth mindset - See change as an opportunity, not a threat.

G. Meet remains productive and not left behind by change.

Awareness of the importance of self-development outside of academic activities is a crucial aspect in the formation of competent and adaptive individuals, including various activities that not only focus on theoretical knowledge, but also on improving practical skills, soft skills, and social experiences that support a person's holistic growth.

The definition of Non-Academic Self-Development can be interpreted as a series of activities carried out by individuals to improve their potential outside the formal curriculum. These activities include participation in organizations, clubs, communities, skills training, and various other extracurricular activities that aim to enrich personal experience and abilities.

One theory that supports the importance of non-academic self-development is the concept of Experiential Learning introduced by David Kolb in 1984. Kolb stated that effective learning occurs through direct experience, where individuals are actively involved in the learning process through practice and reflection. This model consists of four stages:

1. Concrete Experience experiencing a new situation or facing a new experience directly.
2. Reflective Observation reflecting or contemplating experiences from various perspectives.
3. Abstract Conceptualization forming a general concept or theory based on reflection on experience.
4. Active Experimentation testing a concept or theory that has been formed through new actions or behaviors.

Through this cycle, individuals can develop deeper understanding and application skills, which are often not obtained through formal academic learning. Self-development outside the academic realm has several main benefits, including:

1. Soft Skills Development, involvement in organizations or extracurricular activities helps individuals hone skills such as leadership, communication, teamwork, and time management. These skills are very much needed in the professional world and everyday life.
2. Increased Self-Confidence, facing challenges outside the classroom and achieving achievements in various fields can increase individual self-confidence and motivation.

3. Social Networking Opportunities, participating in various communities allows individuals to build a wide social network, can be beneficial in career and personal development.
4. Life Balance, non-academic activities help individuals achieve a balance between academic demands and recreational needs, thus supporting mental health and overall well-being.

Thus, self-development outside of academic activities is not only a complement, but an essential component in forming individuals who are ready to face various challenges in the future.

H. Mental Readiness in Facing Changes of the Times refers to an individual's ability to adapt effectively to the dynamics and transformations that occur in the surrounding environment. This ability includes psychological aspects such as flexibility, resilience, optimism, and openness to new things. In the context of rapid change, mental readiness is key for individuals to remain relevant and productive.

1. Psychological Flexibility:

Psychological flexibility is an individual's ability to stay connected to the present moment, while maintaining full awareness of the situation at hand, and responding effectively to emotional experiences including difficult or unpleasant ones in accordance with their values and life goals. This concept is popular in the theory of Acceptance and Commitment Therapy (ACT) developed by Steven C. Hayes in 2004. ACT emphasizes the importance of accepting reality as it is and taking action that is in line with life values. (radarmalioboro.jawapos.com)

2. Resilience:

Resilience refers to an individual's ability to adapt and recover from adversity, stress, or significant life changes. Individuals who have high resilience tend to be able to face challenges more effectively and maintain their psychological well-being. Research by Gómez-Molinero et al. (2018) showed that optimism significantly predicted resilience levels in college students, where students who had positive expectations about the future would face problems in an adaptive way. e-(journals.unmul.ac.id)

3. Optimism:

Optimism is the tendency to see and expect positive outcomes in various situations. Martin Seligman, in his book "Learned Optimism" (1991), defines optimism as a habit of positive thinking that is reflected in the way individuals explain events that have been experienced or have not been experienced. Optimistic individuals tend to see good things, think positively, and easily give meaning to themselves. Research shows that optimism contributes to psychological well-being by 25.2%, while the rest is influenced by other factors. (ejournal2.undiksha.ac.id)

4. Openness to New Things:

Openness to new things is an attitude of acceptance and enthusiasm for different ideas, experiences, and perspectives. This attitude allows individuals to continue to learn, grow, and adapt to change. Openness is one of the characteristics of psychological flexibility, where individuals are open to new ideas, experiences, and perspectives. voi.id

Developing these four aspects can help individuals face life's challenges more adaptively and maintain optimal psychological well-being. In addition to the aspects discussed previously, there are several other psychological factors that play an important role in helping individuals face changes and life challenges:

1. Emotional Intelligence:

Emotional intelligence refers to an individual's ability to recognize, understand, and manage their own emotions and those of others. Individuals with high emotional intelligence are able to control their emotional reactions, understand the feelings of others, and foster healthy interpersonal relationships. This ability allows a person to remain calm under pressure, empathize, and communicate effectively, all of which are important in dealing with changing situations.

2. Adaptability:

Adaptability is an individual's ability to adjust to changes, new situations, or unexpected challenges. Adaptive individuals tend to be flexible in their thinking and acting, and are able to change strategies or approaches when faced with challenges. This ability allows a person to see change as an opportunity and a threat, so that they can continue to thrive in various conditions.

3. Problem Solving Skills:

Problem solving skills include the ability to analyze situations, identify problems, and find effective solutions. Individuals with these skills are able to think critically, creatively, and logically in facing challenges, not easily giving up when facing difficulties, but rather looking for various alternative solutions and choosing the most appropriate one.

4. Positive Attitude:

A positive attitude is the tendency to see the bright side of every situation and believe that good things will happen. Individuals with a positive attitude tend to be more optimistic, motivated, and resilient in facing challenges. This attitude helps to stay enthusiastic and focused on goals, even when facing obstacles or failures.

5. Intrinsic Motivation:

Intrinsic motivation is the drive that comes from within an individual to do something because of personal interest or satisfaction, not because of external pressure. Individuals with high intrinsic motivation tend to be more committed, enthusiastic, and persistent in achieving goals. This motivation encourages to continue learning and developing, even when facing challenges or challenges. Reading and maintaining these psychological aspects can help individuals become more resilient and ready to face various changes and challenges in life.

The Role of Psychological Capital: Luthans, Youssef, and Avolio (2007) introduced the concept of psychological capital consisting of four main components: Self-efficacy: self-confidence in the ability to complete tasks and face challenges, Optimism: a positive attitude towards the future and expectations of good results, Hope: the ability to set goals and find ways to achieve them, Resilience: the ability to bounce back from difficulties or failures. These four components contribute significantly to an individual's readiness to face change. Research published in the Journal of Psychology, Universitas Gadjah Mada in 2017 found that psychological capital plays an important role in increasing an individual's readiness to change. (jurnal.ugm.ac.id)

The Effect of Job Stress and Coping Strategies: A study published in the Journal of Psychology, Universitas Gunadarma in June 2023 examined the relationship between job stress, coping strategies, and readiness to change. The results showed that adaptive coping strategies can moderate the negative effects of job stress on an individual's readiness to face change. In other words, individuals who are able to manage stress well tend to be more prepared to face changes in their work environment. (ejournal.gunadarma.ac.id)

Self-Efficacy and Resilience: Research published in the Socio-Concept Journal by the Ministry of Social Affairs of the Republic of Indonesia in 2020 revealed that individuals with high levels of self-efficacy and resilience have greater readiness to face change. This shows that self-confidence and mental resilience play an important role in adapting to change. (e-journal.kemensos.go.id)

III. Research Method

1. Research Approach, this uses quantitative with survey method reason, quantitative approach will provide measurable data about student readiness,
2. Research Design, using descriptive and explorative with reason. descriptive design is used to describe the state of student readiness, while explorative design helps in understanding the factors t hat influence readiness
3. Population and Sample
   3.1. Population: Students of SMA Negeri 1 Jampang Tengah Sukabumi

3.2. Samples were taken using random sampling technique Sample size: 305 students with reason, random sampling provides a good representation of the population

4. Research Instrument
   The instrument is a questionnaire, using a Likert Scale to measure students' perceptions of readiness to face future challenges, covering aspects: academic skills, social skills, critical thinking skills, soft skills, adaptability and mental readiness.
5. Data Collection
   The steps, distributing questionnaires to students, collecting and analyzing data using statistical tools. quantitative research with SEM (Structural Equation Modeling) analysis.
6. Data Analysis
   Data analysis techniques use descriptive statistics to describe the results of the questionnaire (eg, average, frequency). Tools, Statistical software using Excel and SEM PLS Model
7. Validity and Reliability
   7.1. Validity: using content validity through expert testing to ensure the questionnaire covers relevant aspects.
   7.2. Reliability, using the Cronbach Alpha Coefficient to measure the internal consistency of the questionnaire
8. Research Ethics

   Approval to obtain permission from the school

   Confidentiality: guaranteeing the confidentiality of participant data (participant data anonymity) and the use of data only for research purposes.
9. Research Schedule

   Preparation: 1 month (planning, instrument design, permission)

   Data Collection: 2 months (questionnaire)

   Data Analysis: 2 months

   Report Preparation: 1 month]

IV. Results And Discussion

This study analyzes the relationship between latent constructs using the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach, with 305 respondents involved as samples in the study. Based on the results of the normality test, the data shows that the distribution is not normal, so the PLS-SEM approach can be selected for analysis, because it does not require the assumption of a multivariate normal distribution as in covariance-based SEM. This approach is more flexible for

use in complex models with medium sample sizes. In addition, PLS-SEM is able to handle exploratory data and has good predictive power.

To improve the accuracy of parameter estimation and conduct statistical significance testing, the bootstrapping technique was used as many as 5,000 resampling times. Bootstrapping allows researchers to obtain t-statistics, p-values, and confidence intervals from path coefficient estimates and measurement indicators without having to assume a particular distribution. The results of the analysis will be presented in two parts, namely the measurement model (outer model) which evaluates the validity and reliability of the construct, and the model.

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
KA1 <- KA	0.725	0.724	0.032	22.737	0.000
KA2 <- KA	0.705	0.702	0.038	18.795	0.000
KA3 <- KA	0.742	0.741	0.029	25.727	0.000
KA4 <- KA	0.402	0.401	0.065	60.218	0.000
KA5 <- KA	0.669	0.666	0.043	15.710	0.000
KA6 <- KA	0.706	0.706	0.033	21.402	0.000
KA7 <- KA	0.716	0.716	0.030	23.795	0.000
KA8 <- KA	0.693	0.691	0.035	20.034	0.000
KA9 <- KA	0.672	0.670	0.041	16.595	0.000
KB1 <- KB	0.610	0.608	0.047	13.085	0.000
KB2 <- KB	0.584	0.584	0.047	12.392	0.000
KB3 <- KB	0.570	0.570	0.051	11.237	0.000
KB4 <- KB	0.648	0.648	0.038	16.850	0.000
KB5 <- KB	0.704	0.703	0.036	19.749	0.000
KB6 <- KB	0.574	0.572	0.052	10.969	0.000
KB7 <- KB	0.721	0.721	0.030	24.180	0.000
KB8 <- KB	0.646	0.644	0.045	14.326	0.000
KB9 <- KB	0.733	0.733	0.028	26.497	0.000
KB10 <- KB	0.733	0.734	0.028	26.663	0.000
KBK1 <- KBK	0.686	0.686	0.038	18.003	0.000
KBK2 <- KBK	0.728	0.726	0.036	20.312	0.000
KBK3 <- KBK	0.643	0.641	0.054	11.863	0.000
KBK4 <- KBK	0.760	0.759	0.025	29.841	0.000
KBK5 <- KBK	0.663	0.663	0.042	15.881	0.000
KBK6 <- KBK	0.669	0.668	0.039	17.263	0.000
KBK7 <- KBK	0.671	0.670	0.042	16.026	0.000
KBK8 <- KBK	0.673	0.671	0.037	18.109	0.000
KBK9 <- KBK	0.715	0.716	0.029	24.620	0.000

KBK10 <- KBK	0.697	0.697	0.043	16.272	0.000
KM1 <- KM	0.696	0.695	0.044	15.936	0.000
KM2 <- KM	0.755	0.755	0.029	25.827	0.000
KM3 <- KM	0.674	0.673	0.038	17.602	0.000
KM4 <- KM	0.689	0.689	0.044	15.581	0.000
KM5 <- KM	0.627	0.627	0.041	15.374	0.000
KM6 <- KM	0.693	0.694	0.036	19.356	0.000
KM7 <- KM	0.686	0.686	0.034	20.296	0.000
KM8 <- KM	0.711	0.710	0.043	16.520	0.000
KM9 <- KM	0.744	0.745	0.031	23.768	0.000
KM10 <- KM	0.730	0.730	0.032	22.712	0.000
KS1 <- KS	0.466	0.466	0.060	7.7520	0.000
KS2 <- KS	0.635	0.634	0.038	16.606	0.000
KS3 <- KS	0.688	0.687	0.036	18.921	0.000
KS4 <- KS	0.608	0.609	0.047	12.935	0.000
KS5 <- KS	0.596	0.594	0.052	11.469	0.000
KS6 <- KS	0.655	0.653	0.038	17.347	0.000
KS7 <- KS	0.564	0.562	0.051	11.006	0.000
KS8 <- KS	0.656	0.654	0.040	16.241	0.000
KS9 <- KS	0.484	0.483	0.055	8.737	0.000
KS10 <- KS	0.446	0.445	0.068	6.551	0.000
PT1 <- PT	0.769	0.769	0.026	29.454	0.000
PT2 <- PT	0.760	0.760	0.026	29.139	0.000
PT3 <- PT	0.706	0.705	0.039	17.960	0.000
PT4 <- PT	0.747	0.747	0.031	24.028	0.000
PT5 <- PT	0.797	0.798	0.021	37.441	0.000
PT6 <- PT	0.759	0.759	0.032	23.786	0.000
PT7 <- PT	0.759	0.759	0.029	26.498	0.000
PT8 <- PT	0.705	0.704	0.038	18.497	0.000
PT9 <- PT	0.583	0.583	0.049	11.878	0.000
PT10 <- PT	0.721	0.720	0.039	18.459	0.000
SD1 <- SD	0.681	0.680	0.033	20.873	0.000
SD2 <- SD	0.719	0.717	0.032	22.179	0.000
SD3 <- SD	0.679	0.678	0.039	17.246	0.000
SD4 <- SD	0.759	0.758	0.030	25.019	0.000
SD5 <- SD	0.706	0.706	0.034	20.680	0.000
SD6 <- SD	0.702	0.701	0.037	18.752	0.000
SD7 <- SD	0.766	0.766	0.025	30.323	0.000
SD8 <- SD	0.708	0.709	0.029	24.432	0.000
SD9 <- SD	0.653	0.651	0.039	16.607	0.000

SD10 <- SD	0.745	0.745	0.030	24.644	0.000
SS1 <- SS	0.653	0.652	0.041	15.961	0.000
SS2 <- SS	0.645	0.645	0.039	16.638	0.000
SS3 <- SS	0.681	0.680	0.038	18.008	0.000
SS4 <- SS	0.680	0.681	0.037	18.316	0.000
SS5 <- SS	0.725	0.725	0.030	24.452	0.000
SS6 <- SS	0.616	0.616	0.045	13.636	0.000
SS7 <- SS	0.759	0.759	0.025	30.484	0.000
SS8 <- SS	0.692	0.691	0.035	19.691	0.000
SS10 <- SS	0.617	0.617	0.047	13.123	0.000

Structural capital (inner model) that tests the strength and direction of the relationship between latent constructs according to the proposed hypothesis.

Measurement Model (Outer Model)

A. Outer Loadings Table

The outer model analysis aims to evaluate the validity and reliability of indicators in measuring latent constructs in the research model. Based on the results of bootstrapping of 5,000 sub-samples, the outer loading value is obtained which shows the contribution of each indicator to its construct. In general, almost all indicators have a loading value above 0.70, which indicates that the indicator has very good convergent validity. Indicators such as KA1, KA2, KA3, and PT5 and PT6 show the highest loading values (> 0.75), indicating a high representation strength of their constructs. However, there are several indicators such as KA4 (0.402), KS1 (0.466), KS9 (0.484), and SS10 (0.617) that have loading values below the ideal standard. However, as long as the construct continues to meet the composite reliability value and AVE as a whole, this indicator can still be maintained with notes.

In addition to assessing the loading value, the indicator significance test was carried out through the t-statistic value and p-value of the bootstrapping results. Based on the results obtained, all indicators have t-statistic values that far exceed the threshold of 1.96 and a p-value of 0.000, indicating that the relationship between each indicator and its construct is statistically significant at a significance level of 5%. The highest t-statistic value was found in the PT5 indicator of 37,441, followed by SS7 (30,484), PT6 (23,786), and others which were on average above 10, indicating good consistency and strength of the measurement model. With this significance, it can be ascertained that all indicators used in this study are statistically valid and support the measurement of the constructs used. Overall, the results of the outer model analysis show that the indicators in this study have met the criteria for convergent validity and are statistically significant. Thus, all indicators can be continued to the inner model analysis stage (structural model) to test the causal relationship between latent

constructs. Although some indicators have loading values below the optimal standard, the t-statistic and p-value values that remain significant strengthen the argument for maintaining them, especially if their existence is important in substance or theory. To improve the quality of the model, additional steps such as composite reliability (CR) and discriminant validity tests (using the HTMT or Fornell-Larcker methods) still need to be carried out so that the entire construct can be ensured to meet the eligibility as a valid and reliable measuring instrument in explaining the latent variables studied.

B. Outer Weights

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
KA1 <- KA	0.181	0.182	0.023	8.009	0.000
KA2 <- KA	0.148	0.148	0.020	7.475	0.000
KA3 <- KA	0.181	0.181	0.020	8.915	0.000
KA4 <- KA	0.115	0.115	0.026	4.502	0.000
KA5 <- KA	0.124	0.123	0.023	5.412	0.000
KA6 <- KA	0.186	0.186	0.021	8.639	0.000
KA7 <- KA	0.222	0.222	0.022	10.311	0.000
KA8 <- KA	0.163	0.163	0.020	7.982	0.000
KA9 <- KA	0.145	0.145	0.020	7.158	0.000
KB1 <- KB	0.139	0.139	0.012	11.203	0.000
KB2 <- KB	0.130	0.129	0.012	10.495	0.000
KB3 <- KB	0.133	0.132	0.013	9.953	0.000
KB4 <- KB	0.169	0.169	0.012	14.404	0.000
KB5 <- KB	0.158	0.158	0.012	13.442	0.000
KB6 <- KB	0.137	0.136	0.013	10.174	0.000
KB7 <- KB	0.174	0.173	0.012	14.678	0.000
KB8 <- KB	0.140	0.140	0.012	11.577	0.000
KB9 <- KB	0.168	0.168	0.011	15.802	0.000
KB10 <- KB	0.170	0.170	0.011	15.656	0.000
KBK1 <- KBK	0.147	0.147	0.013	11.450	0.000
KBK2 <- KBK	0.150	0.150	0.011	13.837	0.000
KBK3 <- KBK	0.133	0.133	0.015	8.851	0.000
KBK4 <- KBK	0.147	0.147	0.012	12.665	0.000
KBK5 <- KBK	0.148	0.148	0.012	11.970	0.000
KBK6 <- KBK	0.145	0.145	0.014	10.050	0.000
KBK7 <- KBK	0.137	0.137	0.013	10.457	0.000
KBK8 <- KBK	0.133	0.132	0.010	13.841	0.000
KBK9 <- KBK	0.161	0.161	0.013	12.250	0.000
KBK10 <- KBK	0.144	0.144	0.012	11.650	0.000
KM1 <- KM	0.146	0.146	0.010	15.127	0.000
KM2 <- KM	0.158	0.158	0.008	20.902	0.000

KM3 <- KM	0.132	0.132	0.007	18.247	0.000
KM4 <- KM	0.137	0.136	0.008	16.623	0.000
KM5 <- KM	0.120	0.120	0.007	15.985	0.000
KM6 <- KM	0.145	0.145	0.008	18.203	0.000
KM7 <- KM	0.137	0.137	0.007	18.358	0.000
KM8 <- KM	0.152	0.151	0.010	15.683	0.000
KM9 <- KM	0.153	0.153	0.008	19.236	0.000
KM10 <- KM	0.143	0.143	0.007	19.918	0.000
KS1 <- KS	0.153	0.153	0.022	6.856	0.000
KS2 <- KS	0.159	0.158	0.017	9.305	0.000
KS3 <- KS	0.189	0.188	0.018	10.745	0.000
KS4 <- KS	0.214	0.213	0.020	10.526	0.000
KS5 <- KS	0.149	0.148	0.019	7.688	0.000
KS6 <- KS	0.175	0.174	0.019	9.111	0.000
KS7 <- KS	0.164	0.162	0.022	7.455	0.000
KS8 <- KS	0.180	0.179	0.017	10.341	0.000
KS9 <- KS	0.164	0.163	0.023	7.124	0.000
KS10 <- KS	0.167	0.167	0.028	5.972	0.000
PT1 <- PT	0.144	0.144	0.007	20.443	0.000
PT2 <- PT	0.140	0.140	0.007	19.388	0.000
PT3 <- PT	0.131	0.131	0.009	14.332	0.000
PT4 <- PT	0.141	0.141	0.008	18.558	0.000
PT5 <- PT	0.149	0.149	0.007	20.463	0.000
PT6 <- PT	0.141	0.141	0.008	17.773	0.000
PT7 <- PT	0.143	0.143	0.008	17.018	0.000
PT8 <- PT	0.128	0.128	0.008	15.200	0.000
PT9 <- PT	0.108	0.108	0.010	11.254	0.000
PT10 <- PT	0.135	0.134	0.009	15.151	0.000
SD1 <- SD	0.124	0.124	0.010	12.813	0.000
SD2 <- SD	0.139	0.139	0.008	16.386	0.000
SD3 <- SD	0.129	0.129	0.010	13.389	0.000
SD4 <- SD	0.149	0.149	0.008	18.134	0.000
SD5 <- SD	0.154	0.154	0.010	16.167	0.000
SD6 <- SD	0.143	0.143	0.010	14.827	0.000
SD7 <- SD	0.149	0.149	0.009	15.997	0.000
SD8 <- SD	0.148	0.148	0.010	15.317	0.000
SD9 <- SD	0.114	0.114	0.011	10.764	0.000
SD10 <- SD	0.150	0.150	0.010	15.465	0.000
SS1 <- SS	0.149	0.148	0.013	11.886	0.000
SS2 <- SS	0.164	0.164	0.013	12.812	0.000
SS3 <- SS	0.158	0.158	0.012	13.644	0.000
SS4 <- SS	0.169	0.169	0.011	15.787	0.000
SS5 <- SS	0.184	0.184	0.011	17.054	0.000

SS6 <- SS	0.144	0.144	0.011	12.807	0.000
SS7 <- SS	0.178	0.178	0.011	15.723	0.000
SS8 <- SS	0.174	0.173	0.011	15.579	0.000
SS10 <- SS	0.157	0.156	0.014	11.407	0.000

The results of the outer weight analysis in the formative model aim to measure the relative contribution of each indicator to the latent construct formed. Based on the bootstrapping results table of 5,000 sub-samples, all indicators show a statistically significant outer weight value, as indicated by the T-statistic value which is all far above the minimum limit of 1.96, and a p-value of 0.000 for all indicators. This indicates that all indicators have an important contribution in forming the construct they represent. For example, indicators KA7 (Outer Weight = 0.222; T = 10.311) and KS4 (0.214; T = 10.526) have the highest weight in their respective constructs, indicating that the two indicators are the most dominant representations of the construct being measured. A high outer weight value indicates that the indicator plays a major role in forming the latent construct. In the context of the formative model, unlike the reflective model, not all indicators must have a high loading value, but what is more important is their significant relative contribution. Some indicators have relatively low weight values, such as PT9 (0.108) and KA4 (0.115), but are still significant (T > 4.0), so they can be maintained because they provide unique contributions that cannot be replaced by other indicators. Thus, the elimination of indicators in the formative model is not only based on low weight values, but must also consider the substantive meaning and added value of the indicator to the construct as a whole.

The outer weight results in this table show that all indicators have a significant contribution to their constructs. This strengthens the validity of the formative model in the study and confirms that each indicator contributes relevant and non-redundant information. The success of the model in showing a significant contribution from all indicators reflects the quality of the instrument design and the accuracy of indicator selection. Therefore, this model is worthy of being continued to the stage of evaluating the structural relationship between constructs (inner model). In the context of substantive interpretation, the weight of these significant indicators can be used to identify key elements that need to be focused on in interventions or policy making, according to the research topic being studied

A. Convergent Validity (AVE - Average Variance Extracted)

Average Variance Extracted (AVE) is an important measure of convergent validity in reflective models in SEM-PLS (Partial Least Squares - Structural Equation Modeling). AVE represents the average amount of indicator variance explained by the latent construct compared to the variance caused by measurement error. In quantitative research based on latent constructs, such as in studies of mental readiness, attitudes, or perceptions, convergent validity is crucial to ensure that the indicators used truly reflect the intended construct. In general, an AVE value of ≥ 0.50 indicates that the construct is able to explain at least 50% of the variance of its

indicators, so that convergent validity can be declared fulfilled. An AVE value below the threshold indicates that most of the variance comes from errors or that the indicators are not sufficiently representative of their constructs

Tabel data AVE

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
KA	0.458	0.458	0.024	18.788	0.000
KB	0.429	0.430	0.020	20.989	0.000
KBK	0.478	0.478	0.024	19.597	0.000
KM	0.492	0.493	0.024	20.822	0.000
KS	0.343	0.344	0.020	17.535	0.000
PT	0.537	0.538	0.024	22.579	0.000
SD	0.508	0.508	0.025	20.461	0.000
SS	0.457	0.458	0.024	19.404	0.000

Based on the table above, the AVE values for the PT (0.537), SD (0.508), and KM (0.492) constructs are above or very close to the threshold of 0.50. This indicates that these constructs have good or adequate convergent validity. The high T-statistic values for these constructs (all above 20) and the very significant p-value (0.000) also support that the indicators in these constructs have strong and significant representational power towards their constructs. Meanwhile, the KBK (0.478) and SS (0.457) constructs also have AVE values close to 0.50, which in the context of social and psychological research, are still acceptable if supported by indicators that have high individual validity (outer loadings > 0.70) and good statistical significance. However, special attention needs to be paid to the constructs KA (0.458), KB (0.429), and especially KS (0.343), which show AVE values below 0.50. These values indicate that the constructs have not been able to fully explain the variance of their indicators, and most of the variance comes from errors. Although the T-statistic values for these three constructs are quite high and statistically significant, the low AVE values indicate the need for further evaluation. This evaluation can be done by identifying indicators that have low loadings (for example below 0.60), and considering whether these indicators need to be revised or eliminated. Another alternative is to reformulate the construct or add indicators that are theoretically more relevant.

B. Heterotrait-Monotrait Ratio (HTMT)

Heterotrait-Monotrait Ratio (HTMT) is a discriminant validity evaluation method used in reflective models in PLS-SEM. Discriminant validity refers to the extent to which a construct is truly distinct and separate from other constructs in the model. HTMT was developed as a more sensitive alternative to classical methods such as Fornell-Larcker or cross-loading. HTMT is calculated based on the ratio between the

correlations across different constructs (heterotrait-heteromethod) to the correlations between indicators in the same construct (monotrait-heteromethod). In general, higher HTMT values indicate potential discriminant problems. The generally accepted HTMT threshold is 0.85 (Hair et al., 2022), although some studies still tolerate up to 0.90 for more complex models. If the HTMT value between two constructs exceeds this threshold, then there is likely to be redundancy or overlap between the constructs.

	Original Sample (O)	Sample Mean (M)	2.5%	97.5%
KB -> KA	0.578	0.579	0.452	0.693
KBK -> KA	0.694	0.694	0.606	0.771
KBK -> KB	0.914	0.915	0.858	0.964
KM -> KA	0.548	0.549	0.402	0.681
KM -> KB	0.957	0.957	0.921	0.989
KM -> KBK	0.830	0.830	0.753	0.892
KS -> KA	0.656	0.661	0.545	0.758
KS -> KB	0.894	0.894	0.832	0.951
KS -> KBK	0.891	0.891	0.824	0.950
KS -> KM	0.778	0.778	0.700	0.847
PT -> KA	0.572	0.572	0.447	0.686
PT -> KB	0.869	0.869	0.822	0.913
PT -> KBK	0.843	0.842	0.781	0.895
PT -> KM	0.948	0.948	0.913	0.980
PT -> KS	0.794	0.793	0.720	0.859
SD -> KA	0.558	0.560	0.415	0.687
SD -> KB	0.819	0.819	0.757	0.875
SD -> KBK	0.773	0.773	0.692	0.844
SD -> KM	0.855	0.800	0.800	0.901
SD -> KS	0.708	0.709	0.612	0.796
SD -> PT	0.836	0.836	0.771	0.892
SS -> KA	0.656	0.657	0.543	0.756
SS -> KB	0.995	0.995	0.962	1.027
SS -> KBK	0.907	0.908	0.855	0.955
SS -> KM	0.960	0.961	0.918	1.000
SS -> KS	0.881	0.882	0.814	0.942
SS -> PT	0.910	0.910	0.861	0.954
SS -> SD	0.845	0.845	0.789	0.897

From the HTMT table above, it can be seen that almost all HTMT values are below 0.90, even most of them are below 0.85, which indicates that the model has met good discriminant validity. For example, the HTMT between the KBK -> KB constructs (0.914), PT -> KM (0.948), SS -> KS (0.995), and SS -> KM (0.960) is approaching or slightly exceeding the threshold of 0.90. These values are noteworthy because they indicate the possibility of quite high construct similarity, or even potential overlapping concepts. However, if we refer to the 95% confidence interval displayed (columns 2.5%

and 97.5%), as long as the upper limit (97.5%) does not exceed 1,000, the discriminant validity is still acceptable. In the data, none of the values in the 97.5% column touch or exceed 1,000, so statistically it is still declared valid

Another example, the SS -> KS relationship has an HTMT value of 0.995, with a confidence interval of 0.963 to 0.997. This indicates a very high relationship between the constructs, so theoretically it is necessary to review whether the SS and KS constructs are indeed properly distinguished in the instrument design. This could indicate that respondents understand both as similar concepts. However, because the upper limit remains <1,000, and the HTMT value does not deviate far from the tolerance limit, this has not caused a critical problem, although it is recommended to refine the construct or rearrange the indicators in further research.

V. Conclusion And Implication

5.1 Conclusion

Based on the results of the measurement model analysis in this study, it can be concluded that all latent constructs have been thoroughly evaluated through a reflective and formative approach. For the reflective model, the outer loadings results show that most indicators have values above the recommended threshold of 0.70, with a significant t-statistic value (t>1.96) and p-value=0.000. This indicates that these indicators have a strong and significant contribution in measuring their constructs. Several indicators with loadings below 0.70 are retained because they are statistically significant and supported by the theoretical context. Thus, it can be concluded that the indicators in the reflective model meet the individual validity criteria.

For the formative construct, the outer weights results also show a significant contribution from all indicators to their respective constructs. Although there are variations in the size of the weight values, all indicators have significant t-statistics and p-values indicating that no indicators need to be eliminated. This strengthens the validity of the formative construct because each indicator contributes unique information in forming the construct, without any redundant indicators. Thus, in both the reflective and formative models, the indicators used are proven to be statistically valid for use in the research model.

Overall, the measurement model in this study has met all relevant evaluation criteria in the SEM-PLS approach. The indicators in the model, both reflective and formative, show valid and significant contributions, and the constructs formed have adequate convergent and discriminant validity. Therefore, the measurement model can be declared feasible and can be continued to the stage of testing the structural model (inner model) to test the relationship between latent constructs in answering the research hypothesis

The structural model or inner model in the Structural Equation Modeling approach based on Partial Least Squares (SEM-PLS) is used to evaluate the causal relationship

between latent constructs. In this study, the main endogenous construct analyzed is Mental Readiness to Face the Future (KM), which is influenced by seven exogenous constructs, namely: Academic Skills (KA), Adaptability (KB), Critical Thinking Skills (KBK), Social Skills (KS), Technology Mastery (PT), Self-Development Awareness (SD), and Soft Skills (SS). This analysis will focus on the results of path coefficients and total effects to assess the strength and significance of the relationship between these constructs.

A. Path Coefficients: Menilai Hubungan Langsung antar Konstruk

Tabel Path Coefficients

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
KA -> KM	-0.014	-0.013	0.033	0.418	0.676
KB -> KM	0.307	0.306	0.054	5.740	0.000
KBK -> KM	-0.043	-0.039	0.053	0.798	0.425
KS -> KM	-0.051	-0.049	0.043	1.188	0.235
PT -> KM	0.401	0.400	0.057	7.015	0.000
SD -> KM	0.135	0.130	0.054	2.492	0.013
SS -> KM	0.233	0.236	0.066	3.549	0.000

Tabel Total Effects

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
KA -> KM	-0.014	-0.013	0.033	0.418	0.676
KB -> KM	0.307	0.306	0.054	5.740	0.000
KBK -> KM	-0.043	-0.039	0.053	0.798	0.425
KS -> KM	-0.051	-0.049	0.043	1.188	0.235
PT -> KM	0.401	0.400	0.057	7.015	0.000
SD -> KM	0.135	0.130	0.054	2.492	0.013
SS -> KM	0.233	0.236	0.066	3.549	0.000

Total effects are the sum of direct and indirect influences. In this model, because there is no indirect effect (mediation), the total effects value is equivalent to the path coefficients. The interpretation is as follows: PT (Technology Mastery) has the highest total effect (0.401), making it the most determining construct in influencing mental readiness. KB (Adaptability) is in second place (0.307), followed by SS (Soft Skill) (0.233) and SD (Self-Development Awareness) (0.135).

These four constructs are not only statistically significant, but also have important substantive meanings. In the context of education and career preparation, these results indicate that technology-based learning, increasing learning flexibility, developing non-academic competencies, and fostering a spirit of independent learning are the main strategies in developing students' mental readiness.

Meanwhile, the KA, KBK, and KS constructs still show low and insignificant total

effects, strengthening the conclusion that the three are not the main predictors of mental readiness in this model.

The results of the SEM-PLS structural model analysis indicate that Technology Mastery, Adaptability, Soft Skills, and Awareness for Self-Development are four variables that directly and significantly affect Mental Readiness to Face the Future. These findings provide a strong basis for educational institutions, policy makers, and human resource development practitioners to place the focus of education and training programs on these four aspects.

On the other hand, although theoretically important, Academic Skills, Critical Thinking Skills, and Social Skills do not provide a significant direct influence in this model. This opens up space for further exploration, whether the three constructs are more appropriate as moderator variables, mediators, or require a different measurement approach.

This model reflects the importance of 21st century learning that integrates technology skills, adaptive skills, personality development, and lifelong learning as the foundation for mental readiness to face the complexities of the future.]

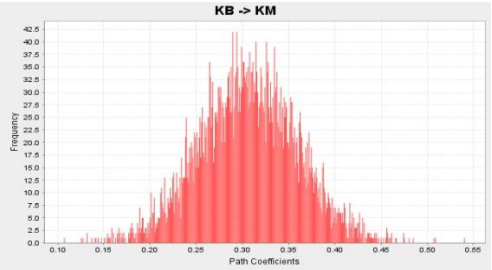
The results of this study indicate an important paradigm shift in understanding mental readiness to face the future. Dimensions such as technology mastery, adaptability, soft skills, and awareness of self-development that have proven significant indicate that readiness is no longer solely determined by academic intelligence or formal logic. In the context of the era of disruption and digital transformation, individual success is increasingly influenced by the ability to navigate technology, work in teams, manage emotions, and consciously evaluate and improve oneself.

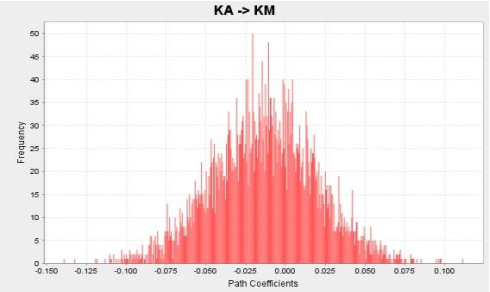
5.2 Implications

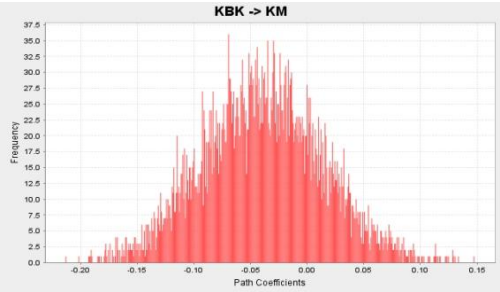
The implications of these findings are very relevant for educational institutions, both at the elementary, secondary, and tertiary levels. The educational curriculum needs to provide more space for the development of non-academic and technology-based skills. Learning approaches that only emphasize cognitive aspects need to be adjusted by adding learning experiences that integrate adaptive abilities and self-awareness. For example, the use of technology-based projects, real-world problem-based group work, self-reflection, and soft skills training need to be an integrated part of the learning system.

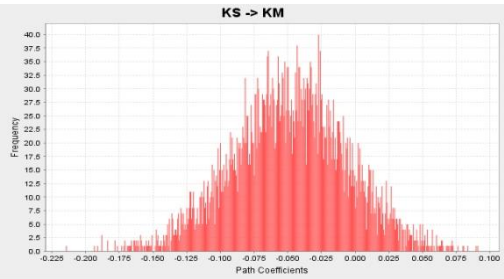
In addition, these findings are also important for employment policies and human resource development. Job training institutions, career development centers, and industry players need to understand that the mental readiness of the future workforce is highly dependent on the balance between technical, social, and psychological competencies. Therefore, training should not only focus on improving practical work

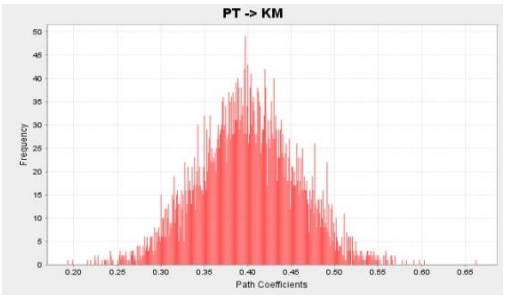
skills, but must also include mental strengthening training and continuous technology adaptation. Thus, the results of this study can be a strategic basis in compiling education and training programs that are oriented towards individual readiness in facing the uncertainty and complexity of the future.

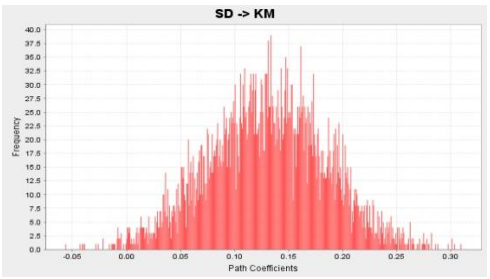


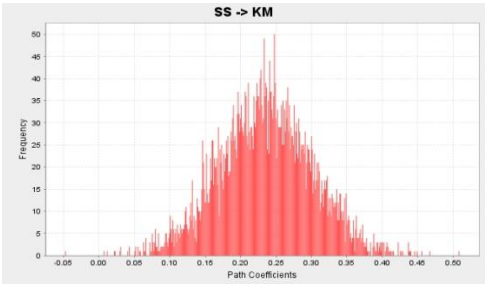


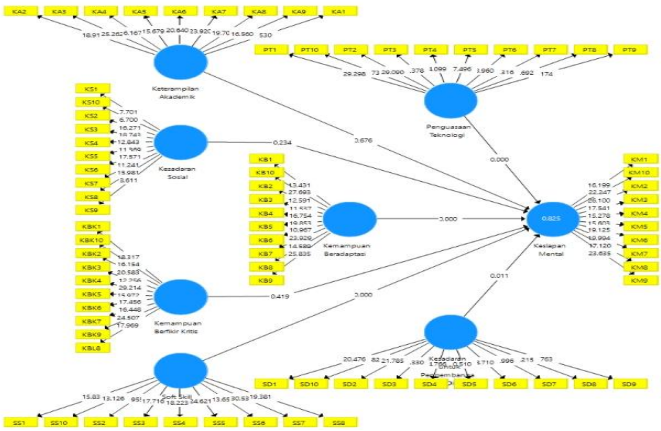












VI. REFERENSI JURNAL

Aritonang, S. P., Lestari, T. E., & Permadi, H. (2023). Partial Least Square-Structural Equation Modeling on the Gender Development Index in East Java. Jurnal Mantik

Hamzah, M. Q., Tinungki, G. M., & Herdiani, E. T. (2022). SEM (Structural Equation Modelling) Analysis Using PLS Method on Poverty Data in Indonesia. IRJAES

Hidayat, A. (2021). Bootstrapping PLS-SEM BasicSMARTPLS Method. Journal Center for Education and Innovation

Kampus sebagai Wadah Pengembangan Diri (Self Development) Mahasiswa. (2022). Berita UPI. https://berita.upi.edu/kampus-sebagai-wadah-pengembangan-diri-

self-development-mahasiswa/

Kolb, D. A. (1984). Experiential Learning: Experience as the Source of Learning and Development. Prentice Hall.

Munir, A. R. (2020). "Pengembangan Diri (Pengertian, Tujuan, Fungsi, Bentuk dan Pelaksanaan)." Kajian Pustaka. https://www.kajianpustaka.com/2020/06/pengembangan-diri.html

Subhaktiyasa, I. G. A. A., & Putra, I. M. A. (2024). PLS-SEM for Multivariate Analysis: A Practical Guide to Educational Research.

Vanisa, D. S., et al. (2024). Provincial Segmentation in Indonesia: Exploring Factors Influencing Education with SEM-PLS Method. BAREKENG: Jurnal Ilmu Matematika dan Terapan