



#### Research article

# Exploring 21<sup>st</sup>-Century Critical Skills Needed for Preparing New Students for Indonesian International Student Mobility Awards

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#### Abstract.

The Merdeka Belajar-Kampus Merdeka (MBKM) [Independent Learning-Independent Campus] policy brings great challenges for university residents, especially new students. Several programs are offered under the policy. One such program is the Indonesian International Student Mobility Awards – a Government of Indonesia scholarship scheme to fund Indonesian students for a mobility program at top universities overseas. Students from all Indonesian universities are eligible to participate in it. However, to get selected for the program, students must meet certain criteria. In addition, they must have specific skills which should be developed and demonstrated from their first year at the university. The 21st-century skills are particularly essential for students as a provision to join the program. This article discusses the 21<sup>st</sup>-century critical skills that students must develop for being accepted to the Indonesian International Student Mobility Awards. The authors have analyzed relevant literature on 21st-century skills such as critical thinking, problem-solving, communication, literacy, leadership, and responsibility. Based on the results, the article concludes that all the aforementioned skills must be developed by new students from the beginning of their study at the university to successfully be included in the program and gain valuable benefits for future life and

**Keywords:** 21<sup>st</sup>-century skills, Indonesian International Student Mobility Awards, new students

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Published 22 June 2022

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Selection and Peer-review under the responsibility of the IOC Conference Committee

## 1. Introduction

The Indonesian International Students Mobility Awards program was initiated and organized by the Ministry of Education and Culture of the Republic of Indonesia (Kemdikbud), and is one of the flagship programs of the eight Merdeka Campus Programs. This program opens opportunities for students to be able to take courses or activities that can be equivalent to courses outside of the competency courses of their study program. In this program, students can study at universities abroad that are partners of the Ministry of Education and Culture for 1 (one) semester whose learning activities are equivalent to

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up to 20 credits, by taking courses and self-development activities that are of interest and in accordance with the requirements that apply at the university overseas partners.

The Indonesian International Students Mobility Awards program aims to improve students' knowledge, soft skills, and cross-cultural understanding; open opportunities for students to get to know and learn the latest science and technology and the direction of future development of science and technology; develop friendships and networks of participating students with students, teachers, and the general public in the countries where students carry out the program; prepare graduates who are qualified, openminded, have experience and global knowledge and are ready to face the challenges of the industrial revolution 4.0 and society 5.0.

Students who intend to take part in the selection of the IISMA scholarship program must meet requirements including they must be Indonesian citizens and domiciled in Indonesia; registered at the university in the country of origin of the student; currently studying in semesters 4-7 in the undergraduate program (S1) while carrying out this program; nominated by a university in the country of origin of the student; have English language skills as evidenced by a minimum official score of IELTS - 6.0, TOEFL iBT - 78, Duolingo English Test - 100 or TOEFL ITP - 550; have never received another foreign student exchange scholarship; willing to follow the applicable rules and regulations set by the Ministry of Education and Culture while participating in this program. Scholarship applicants will be assessed based on academic achievement while students are studying in tertiary institutions, foreign language skills as shown by official documents required by the IISMA selection committee, and other competencies needed to support the activities of the IISMA Scholarship program.

In 2021, the enthusiasm of Indonesian students in participating in this program is very large. There are around 2,500 students who have registered for IISMA and come from 172 Indonesian universities. There are 970 students who have received this scholarship from 98 universities in Indonesia. They have gone and studied in about 39 universities and 30 destination countries around the world. Students who do not have the opportunity to become scholarship recipients, including students who are still in semester 1 (one) can better prepare themselves to meet the requirements and pass the assessment stage.

Based on this IISMA program selection guide, one of the important indicators to be able to pass this program is that students have academic achievements. Students must make every effort to obtain high academic achievement by equipping themselves with 21<sup>st</sup> century skills such as critical thinking and problem solving skills, communication skills, information literacy, and leadership and responsibility skills.



This paper discusses the critical skills of the 21<sup>st</sup> century skills which are closely related to the competencies needed in prospective participants of the IISMA program.

## 2. Methods

To explore the skills of the 21<sup>st</sup> century skills which are considered critical skills related to the requirements of the scholarship program, previous articles related to 21<sup>st</sup> century skills, IISMA program, and studies that are closely related to the discussed matter are collected. The outlook from the collected readings and literature are synthesized and discussed in order to generate links that informs knowledge for students in preparation joining the selection of the program.

## 3. Discussion

There are four domains which are merged comprehensively as 21<sup>st</sup> century skills. They are the Traditional Core subjects and Skills domain (TCS), the Learning and Innovations Skills domain (LIS), the Career and Life Skills domain (CLS), as well as the Digital Literacies Skills domain (DLS) (Trilling & Fadel, 2009) in [1]. As far as IISMA program selection requirements are concerned, at least there are some skills of 21<sup>st</sup> Century skills which is considered representative enough for students to develop these skills. In the end, these skills are sufficient to at least support the improvement of students' academic achievement abilities.

# 3.1. Critical thinking and problem solving skills

As far as stated in the IISMA Program guidelines, in order to qualify as IISMA participants, students must have academic achievements or in other words, students have a high GPA during their study period from semester one to semester 4 or up to semester 7. must have certain skills, namely critical thinking skills and problem solving. Education in higher education must be carried out with an adequate number of skills and competencies because the academic activities faced by students require high-level thinking in order to solve the problems they face. As stated by [2] that critical thinking features prominently in all the skills or abilities learners are expected to acquire through the type of education being provided. One, who cannot think, may not be able to solve even the minutest problem. It only takes a sound mind, a mind imbued with reflective thinking, which can



engage in deep analysis, to come up with causes of the problem at hand and generate possible solutions or options to arrive at a decision; to solve a or get out of the problem.

#### 3.2. Communication skills

Students are able to communicate clearly, straightforwardly and in collaboration with other team members; listening, understanding and speaking clearly; write right and true; negotiate effectively; have empathy, firmness, and wisdom, understand the wishes of others; building relationships and networks; sharing information and ideas recently; fluent in Indonesian and other languages; as well as having logic in summarizing information or data [3].

# 3.3. Literacy information

Students are able to access information effectively (source information) and efficient (time); have a variety of basic ICT skills; using ICT to organize data; willing to learn new ICT skills; evaluate the information to be used critically and competently; use and manage information accurately and effectively to solve problems [3].

# 3.4. Leadership and responsibility skills

Leadership involves a high level of interpersonal skills that can be applied to influence the behaviors and actions of others. These skills include the ability to persuade followers, to motivate them to work towards the achievement of organizational goals and targets, to influence the human interactions and relationships that build the culture of the organization, to solve problems that arise in the workplace, to inspire others to excel at their personal bests; and above all, to demonstrate foresight, vision, and determination (Yukl, 2006) in [1]

## 4. Conclusion

Becoming a student who passes the IISMA program is the dream of many students considering this program promises a valuable experience for students. Students can develop themselves and get broad opportunities to tread a bright future and career. Students who intend to join this program must prepare themselves optimally since being



in semester 1. Having a high academic achievement is one of the important assessments to be able to pass this IISMA program.

Students need to realize that academic achievement cannot be achieved easily, but it is not impossible to get it either. The 21<sup>st</sup> century skills that students can develop during their studies have a major influence on academic achievement. Among them are critical thinking and problem solving skills, communication skills, information literacy, and leadership and responsibility skills. Even though there is no guarantee that by mastering these skills students will immediately pass the IISMA program selection, having these skills is a very valuable long-term capital for students to be successful in the future. Eventually, with earnest prayers and maximum self-preparation, students have a great opportunity to become recipients of the IISMA scholarship program.

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