

Relationship between 21st. Century Skills and the IB Learner Profile

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Abstract

Japanese Universities are becoming a popular choice for International Baccalaureate (IB) students, including National Universities. Okayama University is a Super Global National University (SGU) in Western Japan, which started IB admissions in 2012, and presently hosts 70 IB students including 11 graduates, in 11 faculties and 1 special program. Through continuous follow up of enrolled IB students over a period of almost 9 years, Okayama University has discovered some special characteristics in IB students, which has been embedded in them through their IB education and made them a holistic, global citizen. As a Japanese National University, Okayama University is hopeful that the increasing presence of IB students, who have critical thinking skills, a unique process of learning and an abundance of communication skills, will bring in a new wave of students on campus, in classes and club activities, who can influence international mindedness and help to globalize the university from a local point of view. This report, is an attempt to find similarities between the IB Learner Profile, which lies at the heart of all IB student characteristics and the 21st. Century Skills, which are essential characteristics in developing youth in the age of the internet.

Introduction:

To develop a society, a nation and create a better world for everyone, it is essential to enhance individual development. As the individual's skills develop, it impacts the society and the world around them, while the constant demands of an ever-evolving society in turn, influences the development of the individual's skills. The 21st. Century is the age of information technology, where information is the constantly dominating factor in most people's lives. We desire to be social and our minds are continuously challenged by the abundant information surrounding us. In an era of massive transformation in all sectors of life, students need to be equipped with a certain set of skills to be successful and face real-life challenges. In this digital age, students are required to approach every encounter through a holistic approach that is a balance between academia, social, emotional and ethical skills. Any skill that helps individuals face challenges in the age of the internet, is an essential 21st. Century skill. By acquiring these skills, students can become trained for

the digitalized society and the competitive workforce. These skills will also enhance the student's ability to react and adapt to change, which is inevitable in today's increasingly unpredictable, job market. As the work situation in industries change abruptly, those with newer ideas, methodologies, and higher capabilities will be more in demand, while those who cannot evolve according to the demands, will be left behind. Therefore, it is highly essential that we prepare our students in such a manner, that they can become competent, responsible human beings and an ideal global citizen (Fadel C, 2008, 21st. Century Skills Handbook., 2020) The International Baccalaureate (IB) Mission Statement states that, the IB aims to develop inquiring, knowledgeable and caring young people, who will create a better and more peaceful world through intercultural understanding and respect. The IB program also encourages students to become more active, compassionate and lifelong learners (Conley, 2014). This aspect of the IB ideology is very similar to the 21st. Century way of learning. This report aims to find a relationship between the IB learner profile, characteristics of IB students studying at Okayama University, and the essential 21st. Century Skills.

Introduction to the IB Learner Profile:

The IB program aims to develop students according to the IB Learner Profile. The IB learner profile includes a broad range of human characteristics and responsibilities, which exceed academic success. IB students are encouraged to make a lifelong commitment to help members of their community and beyond, and respect themselves and others around them. The IB learner profile is intended to develop the 10 following skills in all IB students, and at the heart of the learner profile lies, long term holistic education (Hill and Saxton, 2014).

- 1. Inquiries:** Students develop a natural curiosity and learn to acquire the skills necessary to conduct inquiry and research and be independent learners. They actively enjoy learning throughout their lives.
- 2. Knowledgeable:** Students explore concepts, ideas, issues of local and global significance, and while doing so, they acquire in-depth knowledge and develop understanding across a broad range of disciplines.
- 3. Thinkers:** Students exercise initiatives in applying thinking skills critically and creatively to recognize and approach complex problems, and make reasoned, ethical decisions.
- 4. Communicators:** Students understand and express ideas and information confidently and creatively in more than one language and in a variety of modes of communication,

and are willing to work with others.

5. Principled: Students act with integrity and honesty, with a strong sense of fairness, justice and respect for the dignity of other individuals, groups and communities. They take responsibility for their own actions and consequences.

6. Openminded: Students understand and appreciate their own culture and personal histories, and are open to perspectives, values and traditions of other individuals and communities. They seek and evaluate a range of viewpoints, and are willing to grow from their experiences.

7. Caring: Students show empathy, compassion and respect towards the needs and feelings of others. They have personal commitment to service, and try to make positive differences in the lives of others and the environment.

8. Risk-takers: They approach unfamiliar situations and uncertainty with courage and have the independence to explore new roles, ideas and strategies. They are also brave in defending their beliefs.

9. Balanced: They understand the importance of intellectual, physical and emotional balance, in order to achieve personal well-being and the well-being of others.

10. Reflective: They think deeply about their own learning experience. They are able to assess and understand their own strengths and limitations, in order to support their learning and personal development.

Introduction to the Essential 21st. Century Skills:

1. **Critical Thinking:** Finding solutions to problems.
2. **Creativity and Innovation:** Thinking outside the box.
3. **Collaboration:** Working as a team.
4. **Communication:** Talking with others.
5. **Information literacy:** Understanding facts, figures, statistics, and data.
6. **Media and technology literacy:** Understanding how information is published. Understanding the machines that make the “Information Age” possible.
7. **Flexibility and Adaptability:** Deviating from plans as needed.
8. **Leadership and Responsibility:** Motivating a team to accomplish a goal
9. **Initiative:** Starting projects, strategies, and plans on one’s own.
10. **Productivity:** Maintaining efficiency in an age of distractions.
11. **Social skills:** Meeting and networking with others for mutual benefit.

Essential 21st. Century Skills observed in IB students at Okayama University

- 1. Critical thinking:** To succeed beyond the classroom in a rapidly changing world, it is essential for students to be critical thinkers, who can analyze, interpret, explain and solve problems with an open mind. Since the IB has a strong global perspective and focuses on independent learning, IB students are thought to be better prepared for university education. Critical thinking skills not only benefit the individual student, but are also considered valuable for social and communal functioning. IB students at Okayama University, have been often found to engage in reflective and independent thinking in classrooms and seminars, and have also shown a keen interest in social issues and sustainable development goals.
- 2. Creativity and Innovation:** Creativity, Activity, Service (CAS) is a part of the IB Diploma core (IBO, 2017), which is a holistic approach towards extending the IB student's personal and interpersonal skills. CAS aims to develop students who can; a) reflect upon their actions; b) identify goals and develop strategies for personal development; c) explore new possibilities; d) embrace new roles; e) actively participate in CAS projects that are planned, sustained and collaborative and, f) understand their roles as members of local and global communities, who have responsibilities towards each other and the environment. Every IB Diploma student at Okayama University has done the CAS activities. For the creativity part, IB students have taken up challenges such as learning a new musical instrument, starting a new school club, making short movies or learning a new language. For the activity part of CAS, IB students have taken up physical challenges aimed at improving their health and wellness, such as jogging, strength training and yoga. Finally, for the service part of CAS, students have actively volunteered at hospitals, welfare institutions, elderly homes, local schools and community events. The CAS experience has helped IB students learn to think differently, approach problems from newer perspectives and be open to new ideas.
- 3. Collaboration:** In the IB curriculum, collaborative tasks and group work is structured in such a way, that students must learn to rely on each other, share their respective resources and learn to effectively communicate with each other, in order to complete the given tasks. This encourages the development of negotiating skills and the ability to work with others, which is frequently called "collaborative learning". At Okayama University, IB students, unlike Japanese high school graduates, are not at all familiar with the Japanese higher education system, which is completely different from the IB educational environment they have come from. Nevertheless, within 6 months to one year, IB students become accustomed to the new way of learning and collaborate with their classmates and teachers and try their best to adapt to their new environment

(Wright, 2014).

4. **Communication:** Almost 50% of IB students at Okayama University are from IB schools abroad, and until their enrollment, the main language of communication for these students is English. In addition, their respective educational environments are influenced by multilingualism and multicultural perspectives. However, when they begin their university life in Japan, not only are most major classes in Japanese, the majority of their classmates speak only Japanese. While initially it becomes a big challenge for them, IB students effectively use their ability to listen, speak, observe and empathize, to further their communication skills and blend in with their classmates (Mahmood et al, 2016).
5. **Information literacy:** During the IB Diploma program, it is mandatory for all IB students to carry out an independent research and write a research paper of 4000 words, called the “Extended Essay” (EE). By doing this EE as a part of the core IB curriculum, IB students learn to prepare for undergraduate research and are given an opportunity to investigate a topic of personal interest, related to one of their 6 diploma subjects. Through this research opportunity, IB students learn to formulate a research question, explore the topic, communicate ideas and also defend their choices. These are perhaps the reasons why, IB students have been found to understand facts, figures, statistics and data very easily, and are good at analyzing, synthesizing and evaluating knowledge. Of the 11 IB students who have graduated from Okayama University, 6 have gone on to post graduate school to explore further, their research abilities.
6. **Media and Technology literacy:** In the IB program, new technologies are utilized in every aspect of the educational program, both inside and outside the classroom. Very often, digital tools are adopted by students as resources, to prepare for lessons or complete homework assignments. A virtual learning environment and regular use of digital devices, are highly encouraged in IB classrooms. The IB believes that, community building can be effectively done using the communication potential of new technology. Most IB students use laptops in class instead of text books. This early and constant exposure to media and technology usage, seems to help IB students easily understand the various methods, machines and outlets of the digital era in which information is published, which is why they have had no problem switching to online classes, seminars and even club activities smoothly, during the ongoing pandemic (Cooker, 2014).
7. **Flexibility and Adaptability:** The IB Diploma was established to provide students with a balanced education, facilitate geographic and cultural mobility and promote international understanding. All the above qualities can only be mastered if the

student is flexible and adaptable. IB students at Okayama University, come from three categories of IB schools, namely, IB schools abroad, International Schools in Japan and First article schools in Japan (Japanese high schools which offer the IB Diploma, in the final 2 years of the 3-year high school period.). Irrespective of which type of IB school students come from, every IB student adjusted well to the new educational environment, although some took a little more time than others. Specially during the recent pandemic, freshman IB students, could not meet most of their classmates or teachers in person, or get an opportunity to make new friends. However, they remained optimistic and tried hard to adjust to their new life, by taking up new online challenges, meeting up regularly online with classmates and seniors, and joining online club activities, to make new friends. They were able to deviate from their original plans, and be as flexible and adaptable as the situation demanded (Horyathova, 2020).

8. **Leadership and Responsibility:** Feedback from Faculty members have stated that, IB students are good team players, have leadership skills and like taking up new challenges. Some faculty members think that, IB students who plan to pursue careers in medicine, welfare and education, will sometimes require leadership skills in order to motivate a team, to accomplish a common goal. In addition, since these professions require a lot of human interactions and important decision making, and have a great impact on another individual's life, IB students, who have already been equipped with these skills during their IB education, will become beneficial human resources for the society (Mahmood et al, 2017).
9. **Initiative:** The IB Diploma curriculum is made up of six subject groups and the DP core, comprising of the extended essay (EE), theory of knowledge (TOK) and creativity, activity, service (CAS). The mandatory IB diploma core courses enable IB students to reflect on the nature of knowledge (TOK), complete independent research (EE) and undertake a project that involves community service (CAS). These core subjects require the IB student to strategize and plan projects by themselves, and reflect upon the consequences of their own initiatives. Due to the presence of these characteristics, IB students at Okayama University seem to be good at planning and executing solo or group projects, and are often good choices for new research projects and study abroad programs.
10. **Productivity:** In order to be highly productive and maximize self-efficiency, IB students are trained to organize their time and balance extracurricular activities with workload. The first thing they maintain is a daily routine in order to manage their time properly. They try to be flexible about adapting quickly to an overload of assignments,

outside their comfort zone. Maintaining their efficiency irrespective of innumerable distractions, maybe challenging for all students, but IB students have been trained to think that, if they can be productive, they will definitely be rewarded.

11. Social skills: IB education does not only educate students but also nurtures “good human beings”. By incorporating social and emotional learning into their curriculum, the IB intends to inspire kindness in students by encouraging them to be more caring. IB students believe, in order to be a global citizen, one must have respect, tolerance and accept, diversity and inclusion. IB students at Okayama university, are considered to be bright, cheerful, optimistic and empathetic. In addition, almost all IB students have been found to have great social skills, which help them navigate in new situations, and widen their network of friends and teachers, who mutually benefit from each other (Mahmood et al, 2018).

Conclusion

IB students are regarded as 21st. century learners, which is clearly reflected in the 10 characteristics of the IB learner profile. By exploring the basis of the IB learner profile and how it is embedded in the different characteristics of IB students enrolled at Okayama University, we can find a clear connection between the skills expected of students in the 21st century and how the IB education encourages and enhances their development.

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