Implementation of the International Baccalaureate Curriculum of the Industry Era 4.0

*Risfita Wulandari¹, Muhammad Wildan Shohib², Azam Othman³
¹,²Universitas Muhammadiyah Surakarta, Jl. A. Yani, Sukoharjo, Central Java, Indonesia
³International Islamic University Malaysia, Jl. Gombak, 53100 Kuala Lumpur, Malaysia
*gi000204063@student.ums.ac.id

Abstract

This study aims to investigate the implementation of the International Baccalaureate Curriculum for Industry 4.0 Middle Years Program at Al-Firdaus Islamic High School Surakarta by examining how well the objectives and philosophy of the International Baccalaureate Curriculum are in line with the vision and mission of the school. This research uses a qualitative method with a phenomenological approach. Data were obtained from observations and interviews with the principal of the high school, the coordinator of the middle school program, and subject teachers. Data sources used primary and secondary data. The sampling techniques used were snowball sampling and data analysis, with data reduction, data presentation, and conclusion. The implementation of the International Baccalaureate Curriculum is well implemented and successful under the direction of the International Baccalaureate Organization, which continues to provide solutions and assistance to the demands of the Industrial Age 4.0 for the success of fostering international insights and helping students reflect on themselves based on their interests, identity, culture, respect for the environment, values, and multicultural experiences at school.

Keywords: Curriculum Implementation, International Baccalaureate, Islamic School.

Accepted: 11 January 2024
Published: 17 January 2024
International Baccalaureate sejalan dengan visi dan misi sekolah. Penelitian ini menggunakan metode kualitatif dengan pendekatan fenomenologi. Data yang didapat dari hasil observasi dan wawancara dengan kepala sekolah dari Sekolah Menengah Atas, koordinator Middle Years Programme, dan guru mata Pelajaran. Sumber data menggunakan data primer dan sekunder. Teknik pengambilan sampel menggunakan teknik snowball sampling serta teknik analisis data dengan reduksi data, penyajian data, dan kesimpulan. Penerapan kurikulum International Baccalaureate terlaksana dengan baik dan sukses dengan arahan dari International Baccalaureate Organization yang terus memberikan solusi dan pendampingan terhadap tuntutan Era Industri 4.0 atas Keberhasilan menumbuhkan wawasan internasional, membantu siswa untuk merefleksikan diri berdasarkan minat, identitas, budaya mereka sendiri, menghargai lingkungan, nilai, dan pengalaman multikultural di sekolah.

I. INTRODUCTION

Education is the transformation of knowledge towards the improvement, strengthening, and perfection of all human potential (Tafrihuddin & Nizar, 2021). Therefore, education knows no space or time, which is not limited to how thick the school walls are or the narrowness of time in the classroom (Fadilah et al., 2023; Zukhrufin et al., 2021). We need to know that education lasts throughout life, can be done anywhere and anytime humans want, and can carry out the learning or education process (Fitrianto, 2020).

Education is also a shape of effort and deliberate conscious effort to create a learning environment and the method of mastering activities with the intention that students are actively able to broaden their potential or benefits to have non-secular religious strength, personality, intelligence, noble morals, and extended talents (Masgumelar & Mustafa, 2021). The nature of education provides a strong foundation for educational practices to humanize humans. The nature of education makes the direction of education solid and strong enough to glorify humans (Triwiyanto, 2014). The education process is known as humanizing humans. Therefore, we should be able to respect the human rights of every human being.
Physical, emotional, or psychological violence that victims repeatedly experience can lead to bullying at school. Schools should implement anti-bullying programs and create a safe and supportive environment for students to prevent and deal with bullying incidents (Prasetyo et al., 2023).

The world of education will not be separated or can be said to be very close to the term curriculum. In education, the curriculum is a set of plans and arrangements that contain objectives, learning materials, and methods used as a reference for implementing learning activities to achieve educational goals (Triwiyanto, 2021). Student creativity can be developed in many different ways. One of them is by presenting curriculum content with activities that encourage student creativity (Ikhwan et al., 2020; Suratno et al., 2022).

Some groups of educational units find different reactions from the surrounding community because they see that the curriculum transformation in Indonesia has not been able to fulfill their desire to prepare future generations with international insight and skills to compete in the global world. Therefore, there is a hot phenomenon in education where citizens are more interested in educational units that adopt international curricula.

Based on the fact that the educational base with an international curriculum continues to attract people, schools that apply an international curriculum focus their students on having broad horizons, taking risks, having great curiosity, having social attention, thinking in an open and big way, always attaching importance to thinking skills, having a sense of responsibility, being able to formulate concepts and ways or strategies to achieve goals, having physical, mental, and spiritual skills, and being able to reflect on knowledge. Therefore, the new challenge of education units is to apply a curriculum (Anwar et al., 2023). Teachers and students and the rules for implementing the curriculum must be interconnected and adapt to changes nationally and internationally.

The industrial revolution has now entered the fourth phase, which is the advancement of science and technology that has such a big impact on people's lives. Preparing for the Industrial Revolution at this time, it is necessary to plan...
some things, including a more innovative training system to produce a competitive and skilled younger generation, especially in view of data literacy, technological literacy, and individual literacy (Fonna, 2019). Next, university policies that are flexible and adaptable to the 4.0 industrial revolution need to be brought back to improve the fields and research programs needed. Next, professional, flexible, and responsive human resources must be made available to universities going through the industrial revolution. Finally, infrastructure needs to be renewed, and new education, study, and innovation infrastructure needs to be built to support the quality of education (Syamsuar & Reflianto, 2019).

The digital age has had a huge impact on the lives of mankind today. Many areas of life are facing changes and developments thanks to the technology brought in at this time. Islamic education as part of the national education subsystem is also a part that cannot be separated from data and communication technology in the digital era (Ismael & Supratman, 2023). Moreover, the contribution of information and communication technology in education at this time is no longer an option but an absolute desire that must be owned and used at the tertiary level. With the transfer of ideas at this time, people must explore the progress or paradigm that exists, for example, in terms of learning approaches. In conventional Islamic religious education, the educator becomes the central figure in teaching and learning activities (Mufidah, 2022).

Based on research by (Rohmah et al., 2023), the implementation of the International Baccalaureate curriculum at Al-Firdaus Islamic High School Sukoharjo refers to the standards set by the International Baccalaureate Organization internationally. It is adjusted to the national standards of education in Indonesia. The International Baccalaureate curriculum is used as a learning framework at school while the material's content is adjusted to the national curriculum. Second, the effectiveness of implementing the International Baccalaureate curriculum refers to the standards according to the regulations made by the IBO (International Baccalaureate Organization), which have been agreed upon throughout the world. Based on the standards set by the International Baccalaureate Organization in 2018, the effectiveness of implementing the IB

DOI: https://doi.org/10.52615/jie.v9i1.342
curriculum can be seen through the effective learning process, graduate competencies, and student achievement results. Implementing the International Baccalaureate Curriculum at Al-Firdaus Islamic High School Sukoharjo has been running very effectively, although there are several obstacles in the adjustment process. These obstacles can be overcome with assistance from IB Consultants or through school policy programs (Rohmah et al., 2023).

Al-Firdaus is the first international Baccalaureate school in Central Java. Al Firdaus' collaboration with IB confirms Al Firdaus' determination to become a world-class school to provide excellent service in children's education by combining Al Firdaus' identity as an inclusive Islamic school with an IB-class learning framework with the brand Al-Firdaus World Class Islamic School. IB is a school management framework, not only in the curriculum; IB reviews the vision and mission of educational institutions, curriculum, learning, infrastructure, and school relations with stakeholders in various standards it sets. Al-Firdaus combines the framework of Islamic, Indonesian, and international values, which in each subject (knowledge) are linked to the theme of collaboration (concept) through a trance or global context. Al-Firdaus upholds an inclusive education system that is non-discriminatory and respects student diversity. Al-Firdaus Foundation has a unit called Puspa (Children's Service Center) that assists the learning of children with special needs (ABK). Sixta said Al-Firdaus applies inquiry-based learning (learning that allows students to experience the process of forming their knowledge) to managing ABK (Chaniscara, 2021).

This research was conducted considering Al-Firdaus Islamic High School, which became the first school candidate in Solo, Central Java, to implement IB. Therefore, researchers are interested in the IB framework, which aligns with the values in Al-Firdaus by emphasizing the international mindset without leaving local wisdom and religious values, namely Islam. Based on the description above, the researcher conducted a study to find out how the implementation of the International Baccalaureate Curriculum in the Industrial Era 4.0 MYP High School Islamic School academic year 2023-2024.
II. METHOD

This research uses a qualitative research method with a phenomenological approach. Phenomenology is the science that sees and studies phenomena that have been seen and present amid human life with a directed view of humans as part of the experience of human life as part of the world interacting with life. There is a phenomenon in education, namely the International Baccalaureate Curriculum with research subjects at MYP High School and Al-Firdaus Islamic High School. This research is also a key instrument in data collection techniques and research using triangulation methods (Ikhwan, 2021).

The data source uses primary data, where in this study, researchers combine the results of interviews with the reality in the field. Then, using secondary data, which is supporting data obtained from notes, articles, and scientific writings related to applying the international baccalaureate curriculum at the school. The sampling technique was carried out using the snowball sampling technique to know the consideration of MYP Al-Firdaus Islamic High School as the inaugural school in Solo, Central Java, that applies the International Baccalaureate curriculum at the Middle Years Program level. So, the snowball sampling method is the method used to ascertain the sample. Snowball sampling is one way of sampling a population. Snowball sampling is a sampling method that involves rolling from respondent to respondent. The data collection technique is carried out by observation; interviews with parties concerned with problems will be studied with interview data from the principal of MYP High School, the MYP Coordinator, the subject teacher, and documentation (Hashemnezhad, 2015).

The next stage is data analysis techniques with data reduction. At this stage, the researcher selects primary data related to applying the international baccalaureate curriculum of the industrial era 4.0 MYP Al-Firdaus Islamic High School Surakarta, then presents the data. At this stage, the researcher finds that the interview data is related to the results of a literature study regarding the theory taken in applying the international baccalaureate curriculum of the industrial era 4.0 and finally concludes. Conclusions are drawn from data that has been analyzed and data that has been checked based on evidence obtained at the
research location. In this step, researchers draw conclusions related to applying the international baccalaureate curriculum in the industrial era. 4.0 (Alwasilah, 2011).

### III. FINDINGS AND DISCUSSION

#### International Baccalaureate Curriculum

Becoming an International Baccalaureate World School by joining a community of over 5000 schools around the world that deliver IB programs to students to help create a better and more peaceful world through understanding and respect for culture (IB school, 2015). The Middle-Year Program International Baccalaureate (MYPIBM) is one of the programs controlled by the International Baccalaureate Organization (IBO) and was introduced in 1994. Theoretically, the results of the analysis are expected to share insights into the problem of applying the International Curriculum in Indonesian conditions as well as in the dialogue about how the IB Curriculum is developed. In the practical aspect, the analyzed results of this research are expected to be useful in supporting IB schools in applying the IB curriculum in the Indonesian educational setting (Maryono & Emilia, 2022).

International Baccalaureate (IB) programs are growing rapidly worldwide, driven partly by their global reputation and concept-driven, inquiry-based approach to teaching and learning. This thematic review of a range of literature sources examines the impact of IB programs on teaching and learning, highlighting trends, challenges, and benefits (Dickson et al., 2018).

The IB framework aligns with the values in Al-Firdaus that emphasize an international mindset without abandoning local wisdom and religious values. Al-Firdaus has the concept of *Minallah, Ma‘iyyatullah*, and *Ilallah*, which means all knowledge comes from Allah; learning with Allah and knowledge will be used to fight for truth in the way of Allah. Ten learner profiles – curiosity, knowledge, thinker, communicator, principled, open-minded, caring, risk-taking, balanced, and able to reflect on oneself support the idea. This is following the statement of the principal of MYP High School, who said that the right understanding of the International Baccalaureate (IB) in the context of education is a program that
focuses more on practice or a process to educate students to have an IB student profile attitude and create good outputs (Principal MYP, 2023a).

The International Baccalaureate aims to raise a generation of curious, knowledgeable, and caring young people who help create a better and more nonviolent world through intercultural information and appreciation. The corporation works with faculties, governments, and global companies to promote tough, well-known getting-to-know packages and selective evaluation to attain this aim. The applications help college students around the world to turn out to be lively, compassionate, and non-stop rookies who consider that others, with all their variations, can also be proper. This is following the statement of the MYP coordinator at the High School, which states that the International Baccalaureate is more precisely a framework, so for the delivery of content to students, other curricula usually have special material or material books according to the grade level, but in IB there are no special books of material, so the material or content is handed over to each school. IB also has an approach to teaching, learning, and a global context (MYP Coordinator, 2023a). The IB program enables teachers to develop a resilient, self-motivated generation of young humans with the knowledge, abilities, and reasons they'll need to thrive for the duration of their lives and contribute to making the world a better place.
IB international schools proportion the same philosophy, so they are committed to enhancing the coaching and studying of various and inclusive scholar communities with the aid of delivering challenging, worldwide instructional packages that proportion a strong vision. Al-Firdaus Islamic High School is a private school established on 17 March, 1997. Al-Firdaus combines the framework of Islamic, Indonesian, and international values in the management institutions and educational curricula. Al-Firdaus's goal is to prepare a strong Islamic global citizen in affective, cognitive, and psychomotor aspects. International values built in Al-Firdaus are based on three advantages, namely nature, culture, and language, based on Indonesian local wisdom. Al-Firdaus Islamic High School also needs differentiators, so this IB Framework was chosen to be tailored to the school. This is following the MYP Coordinator at the High School, who stated that Al-Firdaus is a private school, so it needs a differentiator tailored to the school. Al-Firdaus accepts students with special needs. This framework is suitable for Al-Firdaus, namely IB. IB emphasizes student processes and skills more, so it is relevant to the situation of students at school. Each student is different in content, process, product, and assessment. Children can choose, so in IB, they can also choose. Then, students have the right to have an opinion, and students also have designers where students participate in designing learning such as learning goals in the next few months; students can discuss with their teachers, and then the teacher facilitates and directs them to achieve learning goals (MYP Coordinator, 2023a).

The view of life and purpose of life in Islam is *Abdullah* and *Khalifatullah fil ardh*. Just as every human being is an individual creature as well as a social creature that has consequences for his roles and responsibilities, The IB program is designed to justify inclusivity and equity, as a result of which all IB learners have similar opportunities in upgrading routes, experiential learning, and recognition of learning. Access and inclusion guidelines are designed to enable the complete participation of all newbies across all 4 IB applications in coaching, schooling, and evaluation (formative and summative) by way of lowering and doing away with obstacles through appropriate and planned entry to preparations.
The coverage of assisting individual rookies tormented by situations inclusive of loss, injury, contamination, or companies of rookies laid low with conditions consisting of natural screw-ups throughout the assessment duration. The IB principles of fairness and inclusive mastering centre on all novices having equal opportunities for each IB learner. Identical opportunity in education expeditions no longer means the same results. However, the attention is on all IB newcomers to participate and engage in the IB program completely. The point is to prioritize equalities and strengths, not separations and what creates the comparisons (IB programmes, 2023).

The main objective of developing IB in Al-Firdaus Islamic High School is, with a strong vision and mission, the realization of quality, innovative, and adaptive Islamic educational institutions to meet the demands of progress based on the Qur’an and the Sunnah. Organizing quality, innovative, and adaptive Islamic education through formal, non-formal, and informal channels. Organizing quality teaching activities with Islamic values that are innovative and adaptive, formal and informal. Explain competitive and Islamic human resources. Developing competent and Islamic human resources. Publishing research and studies to improve the quality of education and conducting research and development to improve the quality of education.

The mission of Al-Firdaus Islamic High School is to create a generation of excellence who understand the complexity of the world, develop skills and character to take responsible action for the future, engage in inquiry, are well-rounded, value diversity (compassion and tolerance), are cultured, and are lifelong learners by including God in every process to contribute to and be responsible for the welfare and peace of the world. Mobilizing the strength of the learner profile presents an opportunity to create an entire enjoy that is caring, balanced, open-minded and dynamic (Stevenson et al., 2017).
To produce a superior generation that understands the complexity of the world, develops skills and dispositions as a generation responsible for the future, conducts inquiry and knowledge, appreciates the uniqueness of each individual (respects differences), is cultural, and becomes a lifelong learner by presenting God in every process to contribute and be responsible for the welfare and tranquillity of the world community. This is following the statement of the subject teacher, which states that IB is a learning system and a more universal education system, meaning that the curriculum in Indonesia is currently independent and only limited to the Indonesian state that uses it, but IB is international, so it is the same where schools that adopt this curriculum have the same system (Teacher MYP A, 2023).
The International Baccalaureate (IB) learner profile describes a broad range of human capacities and responsibilities beyond academic success. The profile aims to develop learners who are (IB learner, 2023):

**Table 1. IB learner profile**

<table>
<thead>
<tr>
<th>No</th>
<th>IB Learner Profile</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Inquirer</td>
<td>We enhance and utilize conceptual understanding and learning insights across multiple disciplines. We engage with issues and ideas that have local and universal significance.</td>
</tr>
<tr>
<td>2</td>
<td>Knowledgeable</td>
<td>We use critical and innovative thinking skills to analyze and take responsible action on complex problems. We use initiative in making well-argued and correct decisions.</td>
</tr>
<tr>
<td>3</td>
<td>Thinker</td>
<td>We express ourselves in current and innovative ways in more than one language and in various methods. We cooperate efficiently, paying close attention to the perspectives of other people and groups.</td>
</tr>
<tr>
<td>4</td>
<td>Communicator</td>
<td>We act with integrity and honesty, with a strong sense of balance and fairness, and respect the dignity and rights of everyone everywhere. We take responsibility for our actions and their consequences.</td>
</tr>
<tr>
<td>5</td>
<td>Principled</td>
<td>We act with integrity and honesty, with a strong sense of fairness and honesty, and respect the dignity and rights of people everywhere. We take responsibility for our actions and their consequences.</td>
</tr>
<tr>
<td>6</td>
<td>Open - Minded</td>
<td>We critically value our own culture and personal history and the values and cultures of others. We seek and assess different points of view, and we are willing to grow from that experience.</td>
</tr>
<tr>
<td>7</td>
<td>Caring</td>
<td>We demonstrate empathy, love, and compassion. We commit to service, and we contribute to making a positive difference in the lives of others and the world around us.</td>
</tr>
<tr>
<td>8</td>
<td>Risk-Taker</td>
<td>We face uncertainty with estimation and intention; we take on independent and similar tasks to explore new concepts and innovative strategies. We are resourceful and strong in experiencing challenges and transformations.</td>
</tr>
<tr>
<td>9</td>
<td>Balanced</td>
<td>We master the meaning of harmonizing our various outlooks on life - intellectual, physical, and emotional - to achieve safety for ourselves and others. We recognize our interdependence with others and with the world we live in.</td>
</tr>
<tr>
<td>10</td>
<td>Reflective</td>
<td>We take careful account of the world and our own opinions and experiences. We seek to master our strengths and weaknesses to support our learning and individual development.</td>
</tr>
</tbody>
</table>

All IB programs aim to develop internationally minded people who, recognizing them as a common humanity and a common guardian over the planet, help create a better and more peaceful world. This follows the statement of the
subject teacher, which states that the main objective of IB development is realising Al Firdaus' mission and making themselves intellectual students (Teacher MYP A, 2023).

Students at the International Baccalaureate (IB) World Schools are provided with completely unique, challenging, and various training. IB newbies are advocated to suppose significantly and remedy complex issues, encouraging their own gaining knowledge of a middle part of instructional programs that could lead them to some of the very best-ranked universities globally, becoming more culturally conscious through second language development, and being capable of engaging with people in an increasingly globalized and rapidly changing world. IB students broaden their strong academic, social, and emotional traits. Additionally, they tend to perform well academically and regularly better than college students in different curricula. This follows the statement of the principal of MYP High School, which states that the main objective of developing this IB curriculum is to create good outputs (Principal MYP, 2023a).

IB views teachers as actors for the school's success and as part of a professional learning community. We offer extensive professional development (PD) to support them, including face-to-face workshops in schools and at regional events, online workshops, and blended learning. IB teachers are provided access to high-quality professional development that encourages critical thinking, self-reflection, and dedication to lifelong learning and continuous improvement. It is innovative and diverse educational frameworks, unit planners, teaching resources and evaluation tools, certifications and degree programs offered by leading universities around the world, and a pedagogy known for producing students motivated to continue inquiry and lifelong learning beyond school studies.

**Implementation of the International Baccalaureate Curriculum MYP Al-Firdaus Islamic High School**

Some countries have already made agreements with the IB. Some provisions are made with national governments; others work with local bodies. The IB has some form of provision in countries such as Canada, Ecuador, Japan, Malaysia, South Korea, Spain, and the United States. The Middle Years Programme (MYP)
and High School emphasize intellectual challenge, pressing 11- to 16-year-old students to make efficient connections between their studies and the real world. The MYP means producing intellectuals who are open-minded, empathetic and have an understanding of the meaning of life.

IB learning aims to transform students and schools as they learn through energetic cycles of inquiry, activity, and reflection. Teachers empower and support students as they improve their learning approaches for academic and individual success. IB seeks to raise students who want to make a more positive world through intercultural understanding, respect, and a healthy and successful desire to learn. This is following the statement of the MYP Coordinator at the High School, which states that. In the process of adapting the IB curriculum to the first school environment, there must be children who are surprised by changes and questions, but with time, following the IB guidelines from the centre, such as teachers and workshops, so they understand more and more, they can find out how children achieve their goals. In IB, students are told to do assignments and participate in learning. For example, material about the environment so students and teachers learn directly in the school environment so children are directly involved (MYP Coordinator, 2023c).

The unit planning process is a significant requirement of the MYP. To improve the concept of the MYP section, teachers work collaboratively to decide on the purpose of the section, describe how to practice guiding through tracking, and reflect on the programming, methods, and consequences of tracking. The MYP section programming method is a significant facet of the cycle of inquiry that frames teaching and learning in IB World Schools (Nurfitri et al., 2020).

The IB program framework can work efficiently with the national curriculum for all ages, with more than one IB World School funded by the state. The IB program differs from other curricula in that it encourages learners of all ages to think critically and challenge assumptions, to grow independently of government and national systems, to incorporate best practices from research and our universal school community, to pressure learners of all ages to consider local and universal conditions, and to promote multilingualism. Discussing the unit planner is
a complete document as a teacher's guide to the success of inquiry-based PDP and replacing daily lesson plans. Each unit of the plan provided should conclude with a summative assessment task to assess the student's level of mastery based on the set learning objectives as well as a list of activities for formative assessment. The tasks assigned are usually associated with authentic real-life situations (Kamaruddin & Mohd Matore, 2020). This follows the statement of the Principal of MYP High School, which states that adapting the IB curriculum into the school environment is like making more of a unit planner (Principal MYP, 2023c).

The MYP consists of 8 subject groups: language acquisition, language and literature, individual and society, science, math, art, physical education and health, and design. Each academic year, students receive at least 50 hours of instruction in each aspect of research. Students aged 4 and 5 can quote subjects from 6 of the 8 research aspects, allowing for more flexibility. MYP: a distinctive approach relevant to the international community. MYP aims to help students develop their personal description, self-confidence and responsibilities that arise within their community. MYP teachers organize the curriculum by taking into account (Muller, 2018):

1. Teaching and learning in context
2. Conceptual understanding
3. Approach to learning (ATL)
4. Service as action (community service)
5. Inclusion and diversity of learning in the MYP
6. Language and identity

Table 2. Open up unit 6

<table>
<thead>
<tr>
<th>Teacher(s)</th>
<th>Alison Norman, Justin Eberenz, amsyn Vertrees, Eric Walker</th>
<th>Subject group and discipline</th>
<th>6 th Grade Math</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit title</td>
<td>Expressions and Equations</td>
<td>MYP year</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unit duration (hrs)</td>
<td>20</td>
</tr>
</tbody>
</table>

Table 3. Inquiry: establishing the purpose of the unit

<table>
<thead>
<tr>
<th>Key concept</th>
<th>Related concept(s)</th>
<th>Global context</th>
<th>Exploration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship</td>
<td>Representation, Model</td>
<td>Identities and relationship</td>
<td>Personal efficacy and agency; attitudes, motivation, independence; hapines and the</td>
</tr>
</tbody>
</table>
Representations of relationship and models promote personal agency and positive attitudes to motivate and bring happiness to yourself and others.

<table>
<thead>
<tr>
<th>Inquiry questions</th>
<th>Summative assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factual: What is the relationship between an expression and equation?</td>
<td>Relationship between summative assessment task(s) and statement of inquiry:</td>
</tr>
<tr>
<td>Conceptual: How do diagrams and equations relate to one another?</td>
<td>• The summative assessment task meets our goal of the statement of inquiry by having students connect their understanding of mathematical relationship and how they can be expressed as representations and models, and how that relates to a real-life problem to solve</td>
</tr>
<tr>
<td>Debatable: What is the best diagram to show the relationship in expressions and equation?</td>
<td>• Our statement of inquiry relates to the summative assessment through the creation of an end of the year celebration for their fellow student. They are asked to consider their students’ personal interests and cultures. Being able to represent and model the plan will be an indicator of their positive relationship with their peers. The end product will be a well-thought representation as they try to reach various cultures with the overall idea of motivation. After a difficult, stressful school year, the student will get to pursue a real-life example of providing a good time for other. This summative assessment creates a hands-on, real-life task as the student work through various topics to create a positive and result. From this experience, they will be able to</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Summative assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criterion D: Applying mathematics in real-life contexts</td>
<td>Outline of summative assessment task(s) including assessment criteria:</td>
</tr>
<tr>
<td>Objective D:</td>
<td>• G-Your goal is to show how the representation of relationship and models promote personal agency and positive attitudes to motivate and bring happiness to yourself and others</td>
</tr>
<tr>
<td>• Identify relevant elements of authentic real-life situations</td>
<td>• R-You teacher at a school that has had a hard year with student who need cheering up</td>
</tr>
<tr>
<td>• Select appropriate mathematical strategies when solving authentic real-life situation</td>
<td>• A-Your audience is the children on your muddle school team and the principal of your school</td>
</tr>
<tr>
<td>• Apply the selected mathematical strategies successfully to reach a solution</td>
<td>• S-You need to plan a party to bring happiness and motivation to your student who are having a hard year</td>
</tr>
<tr>
<td>• Explain the degree of accuracy of a solution</td>
<td>• P-You will use the relationships of quantities and visual models of party cost to determine the best combinations of food, venue, transportation, and entertainment that will best fit your class of student and bring them happiness and motivation. Some relationships can be show with algebraic equation and expressions, and some will be expressed with visual models</td>
</tr>
<tr>
<td>• Describe whether a solution makes sense in the context of the authentic real-life situation</td>
<td>• S-Your work will be judged by MYP mathematics criterion D (applying mathematics in real-life contexts)</td>
</tr>
</tbody>
</table>

DOI: https://doi.org/10.52615/jie.v9i1.342
<table>
<thead>
<tr>
<th>Approaches to learning (ATL)</th>
<th>life context)</th>
<th>communicate their knowledge through the execution and creation of this task.</th>
</tr>
</thead>
</table>

**ATL skill-reflection**
- Explain their reasoning
- Show and model their reasoning in an observable way
- Describe, explain, or justify the solution within the context of the task

**Table 4. Teaching and learning through inquiry**

<table>
<thead>
<tr>
<th>Content</th>
<th>Learning process</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCSS.MATH.CONTENT.6.EE.A.2</td>
<td>Write, read, and evaluate expressions in which letters stand for number</td>
</tr>
<tr>
<td>CCSS.MATH.CONTENT.6.EE.B.5</td>
<td>Understand solving an equation or inequality as a process of answering a question: which value from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in an specified set makes an equation or inequality true.</td>
</tr>
<tr>
<td>CCSS.MATH.CONTENT.6.EE.B.6</td>
<td>Use variables to represent number and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknow number, or, depending on the purpose at hand, any number in a specified set.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Learning experiences and teaching strategies</th>
<th>Formative assessment</th>
<th>Differentiation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question: When were you the most creative with spending your money, and why do you think that is?</td>
<td>Checklist of options – where did they choose the ‘free’ options as they complete the tasks?</td>
<td>Reflection is never ‘mastered’ I continue to encourage and model reflection to students within the classroom setting both personality and academically. Every experience in life should be reflected and improved if repeated. This can be modeled throughout the school year, depending upon the topic.</td>
</tr>
<tr>
<td>Question: If you spending</td>
<td>Peer reviewer or</td>
<td>Is it possible to have it ‘ALL’</td>
</tr>
</tbody>
</table>

DOI: https://doi.org/10.52615/jie.v9i1.342
doubled or tripled or escalated, describe how your plan would improve? How does your party plan make sense for our team? student survey to determine quality of planned outcomes. and still stay within a reasonable amount of money?

| Question: What is the most important thing you learned about party planning? | Scoring rubric – identify tasks to model (like a hanging diagram or virtual manipulative) or write expression/equations and the expectation of each task. | Student can provide more than 1 experience within the project. |

Resources

Table 5. Reflection: considering the planning, process and impact of the inquiry

<table>
<thead>
<tr>
<th>Prior to teaching the unit</th>
<th>During teaching</th>
<th>After teaching the unit</th>
</tr>
</thead>
</table>

Al-Firdaus joined IB in 2018 and, in 2020, became authorized IB. The process of adapting this framework to schools certainly exists, be it for teachers, students, or parents. Teachers at Al-Firdaus Islamic High School are very adaptable to the administration. This is under the statement of the subject teacher, which states that the process of adapting the IB curriculum to this school environment is based on learning tools in IB, but there is indeed a guidebook and the process of adapting the language of instruction in the administration regarding the unit planner (Teacher MYP C, 2023).

Constrained by language, but with guidance, the IB was able to get Al-Firdaus through these difficulties. Routine workshops and training for teachers. Children who are always given understanding and parents who always have collaborative meetings with parents, students, and teachers in applying this framework at every admission, new students continue to be socialized about this IB framework. This is under the statement of the MYP Coordinator, who said that the strategy to ensure that the IB curriculum is effectively integrated into daily lessons while still maintaining the school's identity starts from the top, namely the administration in IB. There is a recruitment framework where teachers have

DOI: https://doi.org/10.52615/jie.v9i1.342
attended workshops or training in IB, and it rotates every teacher. Then comes the stage of socialization with teachers, students, and parents regularly, namely 3-way conferences and collaborative discussions between students, teachers, and parents aimed at compiling or agreeing on planners, be they academic, non-academic, social, or giving contributions. Targets: targets that must be achieved for one semester. In IB, children are also the ones who report learning outcomes to parents. Then, the IB personal project is a requirement for class (MYP Coordinator, 2023c).

Figure 4. Parents orientation

The implementation of the International Baccalaureate Curriculum can run well because of the strategies and efforts made by teachers, such as in biology subjects, with direct practice in the school environment regarding subject content to achieve learning goals, along with the direct experience and interaction of students who are more active in learning. In order to be open to the outside world, we need to understand it. Therefore, IB programs provide students opportunities to continuously inquire about various local and global problems and ideas. The willingness to look beyond existing situations and boundaries is essential as globalization and new technologies increasingly blur the boundaries between local, national, and international.

In the IB report card, the assessment is in the form of comments describing the abilities and progress of each child, so if in the K13 curriculum, there is a
Minimum Completeness Criteria that must be achieved by all students, in the IB report card the Minimum Completeness Criteria that must be achieved are the previous results of the assessment of the students themselves. This makes each student progress differently and is not generalized to other students. This is in accordance with the statement of the MYP Coordinator at the High School, which states that measuring student success from assessment prioritizes each child's process and progress by looking at their respective goals or planners, although in different ways. In Al Firdaus, there is no ranking (MYP Coordinator, 2023c).

There are four dimensions in the IB curriculum. The first is monitoring; this dimension has the greatest assessment weight of around 60%. This monitoring is carried out from the initial process to the end of learning and recorded by the class teacher. The second is documenting; this dimension has a probability of about 20%. Documenting is a portfolio of children's work created and then documented for assessment. The third is assessment, which is a test or exercise; this dimension is the smallest assessment weight. The last is reporting.

These projects provide opportunities for students to demonstrate their knowledge, understanding and skills. Meaningful evaluation supports curriculum objectives. Therefore, the IB program's evaluation is continuous, diverse, and integrated into the curriculum. IB schools use a variety of strategies and tools to assess student learning. Emphasis is placed on the importance of analyzing evaluation information to inform teaching and learning and on the recognition that students benefit from learning how to assess their own work and the work of others. These evaluations equalize validity and reliability, offering evaluation tasks that, for example, require students to prove high-level ideas rather than just recall simple facts. These selective evaluations help protect the IB's hard-earned reputation for high standards and challenging programs. Six similar approaches support teaching across the IB program. These planned approaches are designed to give teachers the flexibility to choose exclusive strategies to implement that best suit their conditions and the needs of their students. In all IB programs, teaching is (IBO, 2017):
1. Inquiry-based. Great emphasis is placed on students creating their information and creating their understanding.

2. Centred on conceptual understanding. Concepts are explored to deepen understanding of the science part and support students in making connections and transferring learning to new settings.

3. Developed in local and universal conditions. Teaching uses real-life situations and illustrations, and students are encouraged to work with current information by relating it to their own experiences and the world around them.

4. Focus on team activities and efficient cooperation. This includes publicizing team activities and cooperation among learners and also refers to the collaborative bond between teachers and learners.

5. Designed to eliminate disruptions in learning. Teaching is inclusive and values diversity. Teaching accounts for learner identity and aims to create learning probabilities that allow each learner to improve and pursue appropriate individual goals.

6. Assessment-based. Evaluation plays a significant role in supporting and measuring learning. This approach also recognizes its valuable role in providing efficient feedback to learners.

Constraints on the Implementation of the International Baccalaureate Curriculum

The main obstacles faced by Al-Firdaus in implementing the IB curriculum are administration and language. Because the language of instruction is English, teachers are more required to upgrade themselves. When the administration also uses English with language limitations, there is personal development. The MYP, in particular, allows teachers to develop conceptual and interdisciplinary strategies to promote IB principles and address the curriculum (Chatlos, 2015).

To support school leaders, the IB requires that MYP schools have an MYP Coordinator, a teacher at the school who serves in this role (Dickson et al., 2020). Then, each teacher makes a unit plan according to their respective subjects. And specifically for tahfidz, because in the IB, there is no one included in the subject group, or makes your own unit planner in accordance with the IB, of course, with

DOI: https://doi.org/10.52615/jie.v9i1.342
direction from the IB. This is in accordance with the statement of the principal of MYP High School, which states that. The main obstacle faced by schools in implementing the IB curriculum is administration because the language uses English (Principal MYP, 2023b).

The next obstacle is the mindset, so changing the mindset is not easy. Not necessarily can change, so we often hold collaborative meetings and parent orientation. Then, of course, socialization, with various kinds of socialization from the IB. And the socialization project must be done once every year. This is in accordance with the statement of the MYP Coordinator, which states that the main obstacle faced is changing the mindset because it is not that easy to change it, so often parent orientation is held, usually 3x every semester, and teachers a week 1x must be collaborative (MYP Coordinator, 2023b).

Overcoming these obstacles requires time and a process. Continue to socialize, be it with teachers, children, or parents. There is a strategy according to the needs of the child. With that, it will be implemented properly because it has received direct support from parents. Overcoming the obstacles with various strategies is in accordance with the statement of the MYP Coordinator, which states that Overcoming these challenges certainly consciously requires a process, and with socialization among teachers, students, and parents, it can be implemented properly because it can be directly supported by parents, students, and teachers (MYP Coordinator, 2023b).

The difference before the existence of the IB framework was that there were still tests, but currently, there are none because 90% of the Al-Firdaus curriculum before and after using this IB is the same, with the IB so neatly tightened with the existence of SOPs and administration alone that distinguishes it. With this, the impact is that teachers better understand students, and teachers become professionals, not generalized students. Teachers have international insight, and children also have international insight. Teachers must present themselves during learning. Teachers are also required to understand students emotionally. This is in accordance with the statement of the MYP Coordinator, which states that The
International Baccalaureate is the same as the *Merdeka Belajar* curriculum (MYP Coordinator, 2023b).

The impact of the differences between the previous and current learning systems on teachers and students is of various kinds. This is in accordance with the statement of the MYP coordinator, which states that, the impact on teachers is more understanding with students, so students cannot be generalized. Students must also be directly involved in learning, a way that teaches with more active students (MYP Coordinator, 2023b). Various kinds of impacts felt by teachers and students are international in character. This is in accordance with the statement of the subject teacher, which states that Teachers have more international insight, for example, in professional development, and can get acquainted with or exchange experiences with teachers around the world (Teacher MYP B, 2023).

Al-Firdaus also has counselling guidance, but this is different from other schools; every child has a schedule for counselling even when there is a problem. Guidance counseling teachers are teachers who enter the classroom and always stay in the office. So, students who are having difficulty with problems or making decisions can seek counselling at any time. Steps to minimize disruption during the teaching and learning process include the existence of clear learning contracts and teaching methods that invite students to be more active. To fit the needs of students and minimize distractions. This is in accordance with the statement of the MYP Coordinator at the High School, which states that the steps are that teachers must present themselves fully and must understand students (MYP Coordinator, 2023b).

With a wide variety of strategies pursued by teachers and schools, This is in accordance with the subject teacher's statement, which states that Measures to minimize disruption with the existence of a learning contract in advance so that there is an agreement between teachers and students (Teacher MYP B, 2023). Once teachers have a strategy that can solve the problem, there are no aspects that are difficult to adapt to this IB in school, but it takes time. The school works to tailor the IB to suit the needs and characteristics of students. This right is in accordance with the statement of the MYP Coordinator at the high school, which
states that, By following the guidance of IB, teachers have successfully attended workshops, and students can learn with other IB schools so as to network with all IB schools in the world. Conduct intensive socialization. So that there is an assessment that makes students not afraid, the needs and characteristics of students are created (MYP Coordinator, 2023b).

Al-Firdaus Islamic High School adapts IB to the needs and characteristics of students, including by changing the mindset with an international perspective for teachers who attend workshops. Students can study at other IB schools so that they have a wider network; each assessment is not a fear for students anymore, and they can present themselves directly every time they attend learning. School makes students happy. Because he can find out what the purpose of his school is.

IV. CONCLUSION

The implementation of the International Baccalaureate Curriculum MYP Al-Firdaus Islamic High School, was carried out gradually and ran smoothly as it is today. Starting from school administration to the IBO, where teachers receive training or workshops gradually. Conduct regular student socialization with direction, socialization with parents, or collaborative meetings with teachers, students, and parents or guardians. The success of IB implementation MYP Al-Firdaus Islamic High School is that IB Education enhances universal knowledge by supporting students to draw on their own perspectives, customs, and identities and thereafter on the perspectives, customs, and identities of others. By learning to respect different beliefs, values, and experiences and thinking and working together across cultures and disciplines, IB students gain the understanding needed to move towards a more harmonious and sustainable world. Universal understanding is also encouraged through a focus on international participation and meaningful service in society. These elements challenge students to critically assess their own power and privilege and recognize that the planet and its resources are a trust for future generations. They also illuminate the focus on action in all IB programs, a focus that moves beyond awareness and explanation to participation and action and brings about meaningful transformation. With this, when the IB framework is implemented in accordance with its directives, the
quality of students and teachers implementing the program will soar, playing a significant role in the development of each program. This also means achieving the vision and goals of MYP Al-Firdaus Islamic High School.

V. BIBLIOGRAPHY


Implementation of the International Baccalaureate Curriculum... – Risfita Wulandari, et al. 166


DOI: https://doi.org/10.52615/jie.v9i1.342


DOI: [https://doi.org/10.52615/jie.v9i1.342](https://doi.org/10.52615/jie.v9i1.342)