

# A Teaching Case Study on the International Baccalaureate Inquiry Unit

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## Abstract

**International Baccalaureate (IB) schools set up inquiry courses, and subject teachers guide students to carry out inquiry in the way of exploration by following the curriculum setting. This article discusses the implementation of exploring the unit “How we organize ourselves” with the experience of current affairs and provides some thoughts for the implementation of inquiry courses by analyzing the inquiry learning cycle in the Primary Years Program (PYP) curriculum.**

## Keywords

**Inquiry curriculum; PYP transdisciplinary theme; How we organize ourselves; Inquiry cycle.**

## 1. INTRODUCTION

IB international schools adopt the way of inquiry and exploration methods to guide students to learn based on the five essential elements of the curriculum system framework in the IB PYP, which are knowledge, concepts, skills, attitudes and actions [1]. Inquiry is a process initiated by students or teachers to develop students' intelligibilities from their current level of understanding to a new and deeper level of understanding. In a transdisciplinary theme of the IB curriculum, students' learning is mainly carried out in a six-week period, focusing on the central idea of the theme, the main line of inquiry and concepts.

## 2. A SAMPLE UNIT “HOW WE ORGANIZE OURSELVES”

In the second semester of the 2019-2020 school academic year, the fifth grade of the primary school of an IB international school I taught conducted the fifth inquiry unit "How we organize ourselves". This unit aimed to explore the "interconnections between human-created systems and communities, the structure and functions of various organizations, social decision-making mechanisms, economic activities and their impact on humans and the environment"[2]. Based on the curriculum setting of this school, this unit took "Organizations are established to meet the needs of the community" as the central idea, and followed the main lines of inquiry: 1) people's needs; 2) the responsibility of the organization; 3) the conditions for the development of the organizations. The concepts were "community", "responsibility", "cooperation" and the related concepts were "causes", "economic factors", "government" and "systems". By proceeding from reality, the students and teachers fully inquired and explored the changes in daily life, the incidents in the surrounding community and the current affairs like the flood disaster in the south of China from the shallower to the deeper comprehensively.

### 3. THE IMPLEMENTATION OF AN INQUIRY CYCLE

Kath Murdoch's inquiry cycle is mainly applied to conduct the explorations in inquiry courses, which provided a structure to implement the inquiry-based teaching and learning. In inquiry cycle, tuning in, finding out, sorting out, going further, making conclusions and taking action are continually revisited as new questions arise, misconceptions are explored, and interest are expressed [3]. Inquiry is not nonrecurring or a separate or specific part in learning but is the approach and lens through which we view all forms and facets of learning. Inquiry is a process, a flexible framework that is cyclical yet not linear.



Figure 1. Inquiry cycle

#### 3.1. Tuning in

As the introduction stage, teachers tune in to students' thinking and activate their prior knowledge by designing tasks that make the students' thinking visible. In this unit, teacher started with what the students already knew, the thoughts that were of interest to this topic, and the reasons for defining the problem. The students questioned and discovered the needs in daily life, and through sharing and thinking of examples, it led to the preliminary conclusion "Due to the needs, people are inextricably linked with various organizations." Based on reality, students combined their daily needs to create a full-featured living community. Its functions included housing, catering and restaurants, supermarkets, elementary or kindergartens, clinics, pharmacies, children's amusement facilities, adult fitness and leisure, express stations, property companies, and communities garages, greening and environmental protection, etc. They made the basic conclusion that "People's basic needs are food, clothing, shelter and transportation as well as the spiritual needs to cultivate life."

#### 3.2. Finding Out

In Finding out, students were extended to go beyond the known and challenged to use their skills to acquire new knowledge. Based on the "needs" concluded in tuning out, and by gathering information from a variety of sources, students explored the common organizations that we have frequent daily connections such as schools, hospitals, government departments, and enterprises. Through comparison and questioning, students found out that these organizations must set up certain departments that have commonalities, which were Human Resources,

Finance, Marketing, and Logistics. In the process of exploring these four departments, students got to know the standards of the target applicant(s) in interviews, and they also conducted the scenario simulations of the financial department, analyzed the connection and differences of "marketing" and "sales" as well as the function of the logistics department. Students not only understood the needs and responsibilities of both recruiters and applicants, but the function and operation of the financial department, the guarantee and efficiency of logistics, and the collaboration and responsibility between "marketing" and "sales", and they also designed a specific learning aid for the fifth grade, and competed for the best market promotion team and product optimization team.

### 3.3.Sorting Out

In this stage, students mainly analyzed, sort, and categorized information, identifying patterns and creating meaning based on the previous stage. After discovering the commonalities of various organizations in Finding out, students constructed and analyzed the structures of various types of organizations. Through teamwork, students build various model structures, for example, the bottom-to-top model, the top-to-down model, the divisional model, the matrix model and the flatarchy model. The constructions of the models were mainly based on analyzing the needs of both the organizations and Human Resource. Then students summarized the advantages and disadvantages of each model structure.

### 3.4.Going Further

This stage mainly revolves around how to organize and arrange the information obtained to evidence their learning, as well as how to put the ideas into practice, and verifying the theoretical knowledge analyzed in the classroom. Therefore, students were assigned to interview the organizations around them on their own in holidays. By acting as observers and participants, they needed to 1) get to understand the function of the corresponding organizational structures in real use; 2) observe and interview staff in different positions; 3) get to know the company's products, promotional plans and ways to motivate employees, and 5) their overall feelings about the organizations. Students' on-site interviews involved industry and commerce departments, police stations, tertiary hospitals, community clinics, property companies, industry and trade companies, pharmaceutical technology companies, brick factories, clothing companies, construction companies, automobile manufacturers, banks, private and public schools, agricultural technology companies, charities and small supermarket chains, etc. When they came back school, they shared and summarized in the class.

### 3.5.Making Connection

Students were provided with time and space to make connections between ideas and contexts, between theory and practice or between the appearance and the essence, and between life and the big environment. Based on "needs" to "organization types", "organizational structures" and "field investigations", in this stage, when the southern part of China was stricken by the flood disaster, we adjusted the original teaching plan, and made the 2020 flood as the inquiry background. Since there had been multiple rounds of heavy rainfall in the southern region, heavy flooding occurred in many places. Since June 6, Hunan province had been hit by the strongest rainfall since the start of the flood season. As of 8 o'clock on June 9th, more than 321,000 people in 8 cities, prefectures and 21 counties in the province were affected, with direct economic losses of 300 million RMB.

In response to these disasters, students first retrieved the information and memory for "Floods" as we just explored the natural disasters in the fourth inquiry unit "How the World Works", to establish the relationship between the causes of floods and flood control methods. Students worked in teams to ascribe and give recommends to the corresponding organizations, departments or individuals, such as the emergency departments, hydrological inspection

stations, disaster reduction departments, non-governmental organizations, and support organizations. Through role substitution, students, as parties, put themselves in the situation and practice the scenes of the relevant cases from the perspective of the person who witnessed the accident, and see the essence through the phenomenon.

### 3.6. Taking Action

The main consideration in the stage is when decisions are needed in school and society, how to contribute ideas and influence the decision-making customization, how to make others notice what we know, and what we should do about events related to ourselves. Students created organizational entities, built organizational structures according to their needs, gave the necessary functions, arranged the internal positions, and conducted demonstrations and preliminary operations inside and outside the school. In addition, the recruitment fair was particularly set up. Each student was both a recruiter and an applicant. They needed to consider the way to conduct the interviews with the aspects of the company's needs, role positioning, job responsibilities and recruitment strategies, etc. There were a website development company, a complex media company (mobile games, express delivery, film and television), a private primary school and an auto parts factory established by different groups. During the recruitment fairs, every interviewer was also an evaluator; they evaluated the performance of each student. Based on the overall evaluation, the list of work qualifications was finally announced.

Finally, after all the stages were completed, the students filled in the unit evaluation form, reflecting on their own questions, participation, cooperation and actions in the whole inquiry cycle. For example, what questions they had initiated, how they influenced the inquiry process, what strategies they made after discovering the problems, which learner profiles they had achieved, which skills they had strengthened, etc., and then made action plans for the aspects that they had not yet accomplished, and set the targets for next inquiry unit.

## 4. DISCUSSION AND CONCLUSION

The goal of the IB PYP program is to cultivate students with international mindedness. Learners strive to become active inquiring, knowledgeable, diligent in thinking, good at communicating, adhering to principles, open-minded, caring, risk-taker, well-balanced and reflective, namely, the IB learner profiles [4]. Meanwhile, IB PYP also aim to foster students to have the twelve attitudes, which are appreciation, commitment, confidence, cooperation, creativity, curiosity, empathy, enthusiasm, independence, integrity, respect and tolerance [5]. Students are also expected to develop the transdisciplinary skills of social skills (accepting responsibility, respecting others, cooperating, resolving conflict, group decision making, adopting a variety of roles), communication skills (listening, speaking, reading, writing, non-verbal communication), thinking skills (acquisition of knowledge, comprehension, application, analysis, synthesis, evaluation, dialectical thought, metacognition), research skills (formulating questions, observing, planning, collecting data, recording data, organizing data, interpreting data, presenting research), self-management skills (gross motor skills, fine motor skills, spatial awareness, organization, time management, safety, healthy lifestyle, codes of behavior, informed choices) [6].

In each unit, students were expected to develop certain learner profiles, attitudes and skills. In this unit with the transdisciplinary theme of "How do we organize ourselves", the six stages of the inquiry cycle have been displayed comparatively comprehensively. Students had analyzed "Organizations" and "How to organize" from simpler to deeper with full action, summary, and reflection, the goal of which is to cultivate students to be equipped with 1) the learner profiles that are knowledgeable, adhere to principles, good at communication, diligent thinking, and reflective and 2) skills: social skills that are responsibility, respect for others, and conflict

resolution; thinking skills for knowledge acquisition, analysis and dialectical thinking; research skills that are asking questions, collecting, organizing and interpreting data. At the same time, the lesson preparation and the actual curriculum are not necessarily consistent but are fully integrated with real process of students' learning and experience. Teachers need to adjust the curriculum plan in a timely manner; encourage students to determine their own interest points of exploration, and maximize the initiative of students. It's also crucial that both teachers and students should keep the open and flexible attitude towards the questions and rhetorical questions aroused by the peers and encourages critical thinking. It is worth mentioning that the inquiry cycle is an organic circle of inquiry, and there is no a fixed first position. The inquiry course can be started from any stage, and the stages also can be increased or decreased. It is also effective to start from the stage that is suitable for the current study according to the curriculum setting.

## REFERENCES

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