



Teachers' Reflective thoughts and Perceptions About Change in the Process of Adaptation to the International Curriculum *

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Abstract

The targeted student profile in the changing world is now aimed at being an individual who plays an active role in their learning process, investigates, questions, thinks and discovers rather than a passive recipient who acquires the information that the teacher understands. Such a student profile requires an understanding of teaching that aims to be equipped with a variety of competencies, rather than the transfer of information that can be acquired in a very short period of time from many sources. Being able to adapt to the ever-evolving and changing dynamics of 21st century, in order to train students equipped with century skills, it is inevitable that teachers will be constantly engaged in reflective thinking practices and guide their own development. This study aims to examine the reflective thinking processes of teachers in a school that is involved in the International Baccalaureate (IB) Middle Years Program (MYP) process adopted and implemented by many schools in Turkey, to reveal how they perceive change in this process and to examine the action plans they develop in the process of change. The study was carried out with 16 participants from different branches. Teachers from branches of Physical Education, Mathematics, Social Studies, Science, Turkish, English Teaching, Technology-Design, Music, Visual Arts, working at IB MYP School were participated in the study. In the study, a semi-structured interview form was used as a data collection tool. Descriptive analysis was used. It is seen that teachers' perceptions of change are clustered within certain frameworks, independent of the branch. The main ones are teaching approach, professional development practices, curriculum, philosophy, planning, collaboration, teaching process.

Keywords

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Introduction

The world is changing, and many issues related to humanity also need development. In this process, where the paradigms related to education change as one of the most important common issues concerning humanity, the targeted student profile in the changing world requires students to play an active role in their own learning process to investigate, inquire, think, and explore, rather than to be a passive recipient of information transmitted by the teacher. Students are expected to develop multidimensional development by participating in learning processes where only knowledge is not enough to become an individual required by the new century. Both international and national evaluations and educational reform movements show that; students need experience to learn skills, attitudes and values beyond knowledge. In this new understanding of gaining this kind of learning experience, the student profile entails a concept of teaching that aims to equip students with more knowledge and skills rather than the mere rapid transmission of knowledge. In this teaching approach, there is a need to apply and evaluate how information can be obtained, how skills can be developed, how to achieve positive attitudes, how values can be supported through education, how global issues can be addressed, and how other elements targeted in teaching programs can be employed in teaching processes.

It is inevitable for teachers to be engaged in constant reflection on their teaching practices and to direct their own development in order to train students who are equipped with 21st century skills and can adapt to changing and developing dynamics with each passing day. Schools must implement new policies, plans and practices in order to be able to respond to the needs of the changing society and to educate students with the skills and competencies required in such a society (Cafoğlu, 1995). This change in schools requires a change in all members of the school community. Organizational change is not possible without consideration of all employees (Çelik & Atik, 2020). It is obvious that it is important to understand this change process correctly and direct the practices accordingly, considering that one of the most common causes of failure in the change processes of the organizations is the negative attitudes towards the change process of the members of the organization (Beer & Nohria, 2000).

Teachers are among the leading actors of the change process in schools (Erdoğan, 2015). Therefore, schools should also consider the change and development of teachers in this process of change. Because the professional development of teachers has a key role in the change process (Lampert & Ball, 1999). In the programs to be implemented for the development of teachers in the process of change, it may include some cognitive elements such as program information, as well as affective elements such as being open to change. One of the most important obstacles to change in education is teachers' negative beliefs about change (Töremen, 2002). Besides, uncertainty about how change might affect them and concerns about their own success in the practices required by this change process can also be effective in the change process (Briscoe & Peters, 1997). When critical factors effective in the implementation of an innovation are considered, the notion and perception of change can be regarded as a factor driving this progress, and it can be assumed that teachers, who occupy a key position in the education system, will take the role of locomotive in this change. According to George and Jones (2008), employees' sense of commitment plays an important role in ensuring compliance with the change process, both at the individual and community levels. In this respect, considering that teachers' professional development and learning are one of the most important elements in increasing the quality of schools and teaching (Kose & Lim, 2011), it becomes important to understand how teachers perceive change at school and what kind of actions they have taken in order to adapt to change.

The key factor determining the success of a school in implementing change is the adaptability of teachers. In the literature, some studies argue that the extent to which schools will be successful in adapting to the change process is largely determined by the practices of teachers (e.g., Fullan, 1991; Hargreaves, 1995). Teachers reflect change to their practice and in this way they provide evidence of their development. In other words, the indicators of the effectiveness of professional development are changes in teaching practices (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009). According to Kwakman (1998), these practices related to change can be examined within four categories: (1) professionally pursuing developments, (2) incorporating new developments and perceptions into

practices, (3) conducting reflective thinking on one's own performance, and (4) cooperating on issues regarding policies and practices. In a similar manner, Hall and Hord (1987) noted that teachers' perceptions and concerns emerging in the process of change develop as a gradual process, starting with awareness and going through some personal, managerial, and cooperative stages related to knowledge.

Looking at the researches on the effectiveness of teaching; questioning, professional development and reflective thinking seem to be closely related to effective teaching (Harris, 1998). In other words, change in schools depends on what teachers think and do (Fullan, 2001). In this process, the learning processes of teachers take place in the school environment (Imants & Van der Wal, 2020) and by the interaction of them, the learning activity and school context (Opfer & Pedder, 2011). Thus, how teachers perceive and manage the process of change has an important role to play in the realization of change. Although these thoughts of teachers are associated with reflective thinking towards their own teaching (Darling-Hammond & Sykes, 1999), school culture also has an impact on the learning process (Jurasaite-Harbisson & Rex, 2010). From this point of view, it can be predicted that revealing reflective ideas of teachers in the context of change in school will have the potential to provide important information.

Teachers take part in some professional development processes both with some steps taken on an administrative basis and in line with their own initiatives. The professional development of teachers can be formal or informal (Shirrell, Hopkins, & Spillane, 2019). According to Hargreaves and Goodson (1996), one of the key principles for teachers' development is self-research and struggle for continuous development. In addition, reflective thinking acts as a catalyst for this development. Thus, if the primary objective of reflective thinking is to look at work conducted with a critical eye (Toker, 2016) and to enhance the quality of the existing performance (Osterman & Kottkamp, 1993), then teachers' reflections on their practices should be considered one of the basic principles of the learning process (Brookfield, 1995; Zeichner & Liston, 1987). According to Zeichner and Liston (1996), individuals thinking reflectively are people who examine problems, place them in a context and try to solve them, are cognizant of assumptions and values and question them, care about the educational and cultural conditions in which education happens, participate in efforts to develop programs and to realize changes and take the responsibility of their professional development. Seen from this perspective, teachers can make use of reflective thinking practices to adapt to changes and to meet their needs to develop (Frid, 2000; Jaworski, 2006).

Different models featured in the literature are available related to change (e.g., Cumming & Worley, 2008; Fullan, 1991). Although the stages are defined by different names and expressions, there can be more or less a common understanding. In this understanding, the basic stages can be defined as diagnosis, planning for the future, implementation and evaluation of the plan. In fact, when these main points of change are closely examined, it is predictable that teachers can treat change with reflective thinking processes as a problem-solving cycle (Dewey, 1933). The organizational need for teachers to adopt a new understanding of their responsibilities can be treated as a new problem situation that they are not familiar with before, in other words, not routine. Therefore, the determination of teachers' readiness for change is an important data source about the members of the organization for the progressive stages of this process (Çalışkan, 2019). In parallel vein, according to Smith and Auger (1986), there is a process of change in which teachers act with foresight and analyze their existing experiences by associating them with new experiences. Therefore, examining reflective thinking processes about how teachers will work their current knowledge in the change process can provide predictions about the success of this change process.

One of the key areas that change requires for teachers is the implementation of education programs. Changes in education programs for various reasons also bring about a new process of integration for teachers. In addition, this process of change becomes more complicated when it comes to the different educational programs that are implemented in addition to the existing curriculum and the action steps towards it are different. Institutions aiming to equip their students with a variety of skills, values, attitudes and concepts rather than mere knowledge and in order to enhance, enrich and bring their teaching practices closer to international standards, have adopted many practices,

understandings, and frameworks are available. One of the frameworks most widely adopted in Turkey is the International Baccalaureate Program (IB). The applications of this program directed to middle school students are carried out within the framework of the Middle Years Program (MYP). The IB addressed in the current study is a concept-based curricular framework that places students at the center of the teaching-learning process and aims to conduct this process within universal contexts.

In this educational framework, defined as innovative by IB MYP (IBO, 2016), teachers are expected to apply a curriculum that meets both national and international needs, to direct instruction through regular and ongoing evaluations, to lay the groundwork for meaningful interdisciplinary learning, to attach importance to critical and creative thinking, to include inquiries for their students to gain international perspectives in the instructional process, and to integrate community-service applications into the curriculum. The design of the instructional process within the framework of this instructional program by considering the objectives of the national instructional program has brought about important changes in the learning-teaching process and teacher and student roles. In this connection, IB MYP applications make a certain change process obligatory for schools in terms of instructional approaches, perspectives of curriculum planning and evaluation, and professional development practices. IB MYP, which can be defined as a philosophy and framework rather than an instructional program brings about not only an instructional change but also an educational change (Scott, 1999). As this change involves a transition from more traditional pedagogy to an inquiry-based approach (Twiggy, 2010), it generally implies a challenging situation for teachers.

A change in a school community can be grouped as an operational change, technological change and systematic change (Özden, 2002). The first refers to changes regarding the way of doing work; the second to changes occurring in the devices used to make the work, and the last refers to changes taking place in the structure and culture of the organization (Taş, 2009). In the process of adaptation to the IB MYP, the passage of schools through all these change processes can be viewed as a natural consequence of the program. It also directs action plans in which teachers develop reflective thinking towards their own practices and development (Airasian & Gullickson, 1997). In this context, the study of teachers' reflective thinking in the process of change can provide important data on what action steps teachers will take towards their practice and development.

In the current study, the goal was to determine the reflective thinking of the teachers and their perceptions of their own developmental change as they pass through these transition stages in a school that implements IB MYP and what kind of action plans they have developed regarding their own developmental and adaptation processes during this process. Thus, the problem of the current research is stated as, "What are teachers' reflective thinking practices, perceptions of change and action plans for development in the first year of the International Baccalaureate Middle Years Program (IB MYP) process?" In this regard, the sub-problems of the current study are determined to be "What are teachers' reflections about IB MYP standards and practices at the end of one year spent in the IB MYP process?" "On which subjects do teachers conduct reflective thinking at the end of one year spent in the IB MYP process?" "What are the action plans made by teachers for their own development in the IB MYP process?" In this context, the reflective thinking, perceptions of change and action plans of teachers towards their own teaching processes in the first year of IB MYP will be discussed in the light of models that define the main points of change. In the study, it was assumed that the teachers in the first year of IB MYP made their reflective thoughts towards their current practices. The study is limited to the IB MYP context and qualitative data on the opinions of teachers from different branches in a school. The results of the study can provide versatile information about perceptions of first year studies for school administrators who plan to implement IB programs in schools and teachers who will take part in practices. In addition, it can provide insight into the information provided by teachers about program changes and adaptation processes, as well as elements related to teachers' attitudes and achievements during the change of programs. With this aspect, it can provide data to both researchers and policy makers.

Method

Research Design

In this study, case study from qualitative research methods was used as the basic research strategy. Merriam (2013) describes the case study as an in-depth depiction and study of a limited system. The limited system in this study was defined as a school and its teachers implementing IB MYP and their reflective thoughts towards change and action plans for development.

The Context Addressed in the Study

The International Baccalaureate Middle Years Program defines an inclusive teaching framework for students aged 11-16. The International Baccalaureate Organization's different sub-framework programs for primary school, secondary school, high school and vocational school are implemented by 5263 schools in 158 countries worldwide and are implemented by 76 schools in Turkey (IBO, 2020). The Program offers an innovative curriculum training program framework aimed at providing conceptual understanding. In this context, local teachers in addition to presenting the opportunity to work towards the requirements of the education program curriculum, students interdisciplinary, creative and critical thinking skills, social and emotional development, and focuses on supporting better learning (IBO, 2016). However, providing an international perspective on the perception of global changes and serving the community is one of the most important elements of this program framework.

Teaching at IB MYP is addressed under 6 different themes, such as sharing the planet, who we are, the place and time we are in, the way we organize ourselves, the way the world works, and the way we express ourselves (IBO, 2016). This program framework (IBO, 2016), in which different disciplines such as mathematics, science and art design their teaching for harmony and the same purpose, aims at teaching processes and gains for concepts, actions, attitudes and skills, points to a different teacher profile than the current program practices in our country. Students, teachers and all school workers are defined as active learners in the framework of the program, which is developed with the aim of having profiles such as searching, questioning, open-minded, communicating. Concepts in 8 disciplines in middle school are taught to achieve the learner profile targeted by IB by blending with global contexts, learning and teaching approaches. Students at the end of the 3rd year of the program carry out a community service project and complete their personal projects in the final year of the program.

The study was carried out at a 25-years old school in Ankara which is affiliated to a foundation and consists of four divisions: kindergarten, primary school, middle school and high school. The school is located on a campus that also includes the university to which the foundation is affiliated. The school is affiliated to the Ministry of Education in all its applications and has been included in the IB Middle Years Program at the middle school level, following the elementary and high school part previously included in the IB system. The year the study was conducted was the 1st of the middle school program. The school was in Year 1 of the nomination process according to the authorization process (IBO, 2015), which consists of the IB program's transcendences of being an interested school, candidate school, and authorized school. Students are usually children of families of middle and high socio-economic status, with almost one third of being children of the academic staff of the university located on the same campus. The majority of the students in the middle school completed their education in the primary school part of the same school and received an education under the Primary Years Program (PYP), which is the basic level of IB.

Participants

The sample of the current study is composed of 16 participants selected by using the purposive sampling method from a school implementing IB MYP. Some of the teachers only teach 5th grade, others only 6th grade, but they teach more than one grade if their fields are physical education and visual arts. The personal information of the participants is given in Table 1.

Table 1. Personal Information of Participants

Participants	Branch	Grade level	Teaching experience (year)	Teaching experience in the International Baccalaureate Programs (year)
T1	English	5-8	10	2
T2	English	6-8	28	1
T3	English	7-8	15	1
T4	Music	5-7	9	4
T5	English	6-7	11	2
T6	Physical education	5-8	19	1
T7	Social studies	6-7	13	2
T8	Turkish	6	12	2
T9	Science	6	8	2
T10	Science	6-7	14	2
T11	Turkish	5	15	2
T12	Visual arts	5-7	17	1
T13	Mathematics	6-7	14	1
T14	Physical education	5-8	17	2
T15	Information technologies	5-8	16	7
T16	Social science	5	13	1

For this research, after confirmation of ethical issues, information was given about the scope of the research by personally applying to the directorate of the school and submitting a file and approval was obtained. Besides, one-on-one contact was established with all the teachers of 5th and 6th grades. The teachers were asked to participate in the study after they had been informed about its nature and parameters and signed a consent form stating that their personal information would be kept confidential, that no part of the study would personally uncomfortable, and that they could leave the study whenever they liked for any reason. All the 5th and 6th grade teachers in the school were invited and the study was conducted with those who agreed to participate.

Data-collection Tools

In this study, a semi-structured interview form prepared in the light of "IB MYP Standards and Practices" (IBO, 2014) is used as a data collection tool. There were 11 main questions in the semi-structured interview form used in the study. In the preparation of the interview questions, international studies and a limited number of national studies were screened and the articles that may be included in the interview protocol were determined. After the interview questions were created, the opinion was taken from an expert familiar with the IB context and who holds a PhD in educational programs and instruction. In line with expert feedback, the phrase in one sentence is clarified and an additional question is added to another sentence. In the pilot study, a teacher familiar with the IB MYP process was interviewed with the interview questions, which were final with the corrections. There was no need for any correction in the questions during the interview with the teacher. An average time of 30 minutes has been set for interviews depending on the duration of the interview.

After the pilot meeting, participant teachers discussed their general thoughts on IB programs, their thoughts on IB MYP, the strongest, weakest, most challenging, easiest aspects of the program they implemented, and their possible reasons and action steps they considered as solutions. After the completion of the interviews, the raw data and the initial findings of the research were transmitted by e-mail to the participants in the form of themes and they were asked to review the findings of the interview. As part of the review, they were asked to indicate whether there was a part of the raw data they wanted to add or modify, and to provide feedback on the themes contained in the findings to represent the data they provided in the interview with them. All participants confirmed the data and the main themes.

Data-collection Process

The data of the study were collected in June, nearly one year after the initiation of the IB MYP membership process of cooperating school. The teachers were asked to submit convenient times for their interviews via e-mail, and interviews were conducted at a time and place suitable for them. Interviews lasted nearly half an hour. All the interviews were conducted by the researcher and tape-recorded with the consent of the interviewees. In the interview questions, biased, confirmative, and refuting expressions were avoided and care was taken not to exhibit mimics and gestures. They were asked about their general thoughts on IB program and their thoughts on IB MYP, their assessment of their first year practices and what action steps they had developed for them, and they were asked to answer them in the light of IB MYP standards and practices.

Data Analysis

Four phases of descriptive analysis (Yıldırım & Şimşek, 2016) were applied in the analysis of the data in the study. Accordingly; (1) the framework defined by IB MYP standards and practices was established, (2) the data obtained from the interviews were processed according to the framework, (3) the findings were defined and (4) interpreted. Transcriptions of interview notes obtained from interviews and notes taken by the researcher when the main data of the study is provided. The data collected from the interviews conducted in the current study were scanned by the researcher and another researcher familiar with IB MYB to obtain a general overview, and different codes were then defined. By comparing the established lists of codes, agreement was reached. On the established list of codes, the expressions involved in the data were coded in a detailed manner and then mutually compared. The statements of the participants that could be used as direct quotations were determined, and frequency tables were constructed for the expressions frequently repeated.

Results

Teachers' Reflective Thinking

When the subjects addressed by the teachers through reflective thinking within the context of IB MYP during a one-year period were examined, it was found that the teachers reflected on seven main themes. These are (1) general opinions about IB, (2) general opinions about MYP, (3) strengths of MYP, (4) challenging aspects of MYP, (5) easy aspects of MYP, (6) decisions and action plans made at the end of the one-year period, and (7) opportunities brought about by working in a school implementing MYP. Findings are discussed under these headings.

The teachers seem to have addressed similar subjects independent of their field. While some points were addressed by all teachers, the frequency and type of addressing some subjects were found to be varying depending on the department. For instance, regardless of their department, one of the subjects most commonly addressed by the teachers was the learning and teaching approaches of IB. This subject was addressed by the teachers within more than one theme, such as general opinions about IB and strengths of MYP. Similarly, while the subject of measurement and evaluation was addressed within the theme of challenging aspects of IB MYP, it was also found to be directing the teachers' action plans.

Teachers' Perceptions of Change

When the teachers' general opinions about the IB programs were examined, it was found that they could be organized under six headings related to the profile of the students the programs aim to train and to an international point of view. Table 2 outlines the main points of teachers' overall thinking towards IB programs in the first year of IB MYP.

Table 2. The main points of teachers ' thinking about IB programs in the first year of IB MYP

Main points of thought for IB	Frequency (f)	Teachers expressing
1. The philosophy of the IB programs	4	T11, T14, T2, T6
2. The profile of IB students	10	T5, T9, T16, T15, T4, T7, T2, T10, T1, T6
3. Basic elements of the IB programs	5	T12, T16, T7, T2, T10
4. An international point of view in the IB programs	9	T13, T5, T8, T3, T4, T7, T2, T10, T14, T6
5. The roles of the learner in the IB programs	7	T9, T15, T4, T7, T2, T1, T6
6. Community services in the IB program	3	T2, T10, T14

When Table 2 is examined, it is seen that the most emphasized points of the teachers are the IB student profile and the international perspective in IB programs. In addition to them; the roles of learners, the basic elements and philosophy of the program, as well as other areas expressed by teachers serving the community in IB programs.

For example, under the theme of IB students ' profile, T15 referred to the open-minded profile as follows:

"I think that the IB programs inculcate very different viewpoints in students, provide wonderful opportunities for students to develop their reflective thinking, and make learning more permanent" (T15)

Similarly T4 underlined IB learner profile:

"I can observe that after graduating from the IB programs, many differences occur in the lives of students. Students graduating from the IB programs are more successful in real life, are self-sufficient, and have a sophisticated sense of responsibility" (T4)

T8 emphasized the international perspective in the program:

"The IB program is an international program and enables students to be versatile people, that is highly positive" (T8)

In addition to the general ideas about IB, teachers also expressed opinions about IB MYP. The main points of these views are in six titles and are in Table 3.

Table 3. The main points of teachers ' thinking towards IB MYP in the first year of IB MYP

Main points of thought for IB MYP	Frequency (f)	Teachers expressing
1. Written curriculum in IB MYP	4	T16, T2, T14, T6
2. Need for cooperative working	7	T5, T11, T12, T3, T16, T4, T1, T14
3. Differences in learning and teaching approaches	9	T11, T9, T8, T12, T15, T7, T10, T14, T1
4. Community service projects	5	T12, T10, T1, T6, T4
5. Incorporating global issues into the curriculum	7	T5, T8, T9, T12, T7, T10, T6
6. Reflective thinking and development	6	T11, T9, T3, T15, T2, T10

The topics most frequently expressed by teachers are differences in approaches to learning and teaching, addressing global issues in the teaching program. In addition to these, the need for collaborative work, reflective thinking and development, community service projects and the written curriculum are other important points discussed.

For example, one of the teachers ' views on IB MYP as defined in the topic differences in approach to learning and teaching has been expressed by T9 as follows.

"You are trying to find different methods, different videos, and different activities. As children themselves learn, you are teaching how to learn. You are imparting skills that the new generation should have." (T9)

Similarly, T15 expressed differences in approach to learning and teaching:

"I find the community service section and universal contexts section of MYP very useful" (T12)

T12 addressed community service in her assessment of IB MYP:

"As students learn many things by experiencing, both permanent learning occurs and their exam stress is reduced. I believe that it better supports learning." (T15)

Another issue, that participating teachers address is the strengths of the IB MYP. When teachers' perceptions of the program's strengths are examined, it is seen that strengths can be grouped into strengths for teachers and strengths for students. Accordingly, when teachers examine the strengths of MYP for students, it is seen that the program supports attitudes, skills and values, not only knowledge, but also the strengths of the teachers in terms of designing the teaching to address differences. Table 4 and 5 addresses the reflective thoughts of the participants in terms of the strengths of IB MYP.

Table 4. Teachers' Thoughts about IB MYP's Strengths in the First Year of IB MYP (student aspect)

Strengths of IB MYP	Frequency (f)	Teachers expressing
1. It targets the learner profile defined through skills and competences	1	T4
2. It is a program directed to training of students who are intellectually sophisticated	2	T14, T16
3. It targets permanent learning	1	T12
4. It supports not only knowledge acquisition but also attitude, skill and value development	6	T16, T8, T12, T4, T10, T1
5. It promotes international consciousness	4	T13, T8, T3, T1
6. It provides opportunities to participate in community services	2	T13, T14
7. It promotes inquiry	2	T13, T16
8. It aims to develop world citizens	3	T5, T11, T14
9. It expands students' point of view	3	T13, T5, T14

Table 5. Teachers' Thoughts about IB MYP's Strengths in the First Year of IB MYP (teacher aspect)

Strengths of IB MYP	Frequency (f)	Teachers expressing
1. It has a different conception of measurement and evaluation	3	T12, T10, T1
2. It brings variety into learning and teaching methods	3	T9, T12, T7
3. It offers a planned and organized curriculum framework	3	T12, T1, T6
4. It allows instruction to be designed to cater to differences in education	5	T12, T16, T15, T7, T6
5. It supports the development of teachers	3	T9, T3, T6
6. It promotes cooperation among students	2	T3, T2

Accordingly, when teachers examine the strengths of MYP for students, it is seen that the program supports attitudes, skills and values, not only knowledge, but also the strengths of the teachers in terms of designing the teaching to address differences.

For example, some teacher statements on the strengths of the IB MYP for the students the idea that the IB MYP T16 should be a program to train students with an intellectual knowledge is as follows:

“Students graduating from this program are intellectually sophisticated regardless of where in the world they are given this education. In fact, it is a program that can teach students ways, methods, techniques, skills, values.”(T16)

T13 expressed the idea that the program should support international awareness in students:

“It promotes international consciousness in students because a student looking through a wide framework can understand not only what is happening in his/her country and environment but also in the world. It encourages students to take part in community service, which helps them to develop their views and to question the life.” (T13)

T3’s view that teachers support collaborative work can be addressed under the program's strengths for teachers:

“In my opinion, it’s focusing on team work; students do plan together, they learn to respect each other’s opinions and reach an agreement. These, I think, also develop one’s personal skills. Moreover, it is an international program, which is its strength. This is a program accepted abroad.” (T3)

In addition to the strengths, participants expressed reflective thoughts on the challenging aspects of IB MYP. The subject that the teachers are most concerned with is the aspects related to measurement and evaluation; this is followed by the deficiencies in the readiness of the teachers. Planning time is also another compelling aspect that teachers mainly address. Table 6 shows participants' evaluations of the challenging aspects of MYP.

Table 6. The Teachers’ Thoughts of the Challenging Aspects of IB MYP in the First Year of IB MYP

Challenging aspects of IB MYP	Frequency (f)	Teachers expressing
1. Teachers’ readiness		
Harmony between the teachers having been trained in different education systems	4	T16, T10, T12, T7
Need to know a foreign language in having access to different resources	3	T12, T14, T6
Teacher training is expensive	1	T1
Adaptation of new teachers to the process	1	T3
2. Program		
Compliance between the expectations of the Ministry of National Education and the IB MYP program framework	3	T8, T16, T4
Lack of clarity about the flexibility in the program	1	T3
3. Planning time		
Teachers cannot allocate enough time to planning due to high number of classes they have to teach	2	T5, T14
Planning takes too much time	5	T13, T5, T14, T10, T1
Not enough time is allocated to working in cooperation	5	T5, T10, T2, T14, T1
4. Measurement-evaluation		
Preparation of the criteria	13	T17, T8, T16, T4, T10, T1, T6, T14, T7, T11, T9, T15, T2
Trying to measure more than one criterion at a time	2	T2, T7
The number of students per teacher is too high and evaluation takes too much time	3	T9, T10, T6
Large amount of documents	2	T10, T6
Giving individual feedback	3	T13, T6, T10
Grading	5	T16, T11, T4, T7, T14

Table 6. Continued

Challenging aspects of IB MYP	Frequency (f)	Teachers expressing
5. Interdisciplinary harmony		
It is difficult to measure what kind of development is promoted in students by different applications conducted in each branch	1	T15
Designing instructions linked in an interdisciplinary way	4	T15, T10, T16, T14
6. Need for sample works		
Finding different samples	2	T12, T15
Lack of works supporting diversified instruction	1	T2
7. Communication with parents		
It is difficult to explain the viewpoint of the program to parents	2	T14, T1
8. Students' adaptation to the program		
Making students familiar with the program elements and processes	2	T3, T6
Understanding the language and terminology of MYP	1	T3

For example, T16 expressed the following opinion regarding the compliance of teachers who grew up in different teaching systems with regard to the challenging aspects of MYP:

"As we have been trained in a very different education system, it is highly difficult to administer this program as desired Turkish." (T16)

T14 addressed the longtime of planning:

"We need some time to learn all, all the strategies, to learn how to use all the program elements offered by IB. We need some time to have access to sample works." (T14)

Under the theme of measurement and evaluation, the number of students per teacher is high and the evaluation takes a long time is considered by T9 as follows:

"I think that the evaluation section of MYP is very difficult for the teacher. I had 100 papers to be read, each of which should have been evaluated considering many criteria; I could not even read some of them." (T9)

Despite its challenging aspects in the reflective thinking process, the easy aspects of IB MYP for teachers have also been expressed. Table 7 shows the easy-to-come aspects of IB MYP expressed by teachers in the implementation process.

Table 7. The teachers' perceptions of the easy aspects of IB MYP in the first year of IB MYP

Easy aspects of IB MYP applications	Frequency (f)	Teachers expressing
1. Teaching		
Finding the great idea in the units	2	T16, T6
Planning questioning	3	T16, T13, T6
Preparing activity	6	T16, T9, T8, T4, T2, T10
Promoting diversity	2	T11, T7
Implementing activities	6	T9, T8, T16, T2, T1, T14
Displaying student products	3	T3, T11, T4
Planning performance-oriented works	4	T11, T4, T14, T6
Designing process evaluations	1	T2
Making use of resources	1	T1
2. Program		
Adapting to the approach	4	T11, T8, T4, T1
Using the common language in all courses	2	T12, T15

Table 7. Continued

Easy aspects of IB MYP applications	Frequency (f)	Teachers expressing
3. Professional development		
Continues development of oneself	4	T11, T5, T3, T6
Working systematically	1	T11
Providing guidance in community projects	1	T11
Participating in workshops	2	T5, T3

Teachers' thoughts about the easy aspects of the IB MYP process are grouped in the themes of teaching, program and professional development. Among them, most stated their thoughts on the sub-theme of preparing and implementing activities. Both of these elements have been defined as sub-dimensions of the teaching dimension in the reflective thinking process of teachers regarding the easy aspects of IB MYP. In addition, teachers also talked about some aspects that were easy for them, such as adapting to the approach and constantly improving themselves, under the titles of program and professional development. For example, under the T11 teaching theme and activity preparation sub theme, the IB MYP statement on the easy-to-come aspects is as follows:

"After finding what you want to teach, planning the unit and finding the activities is easy. Designing activities is enjoyable. If you are knowledgeable about the content, it is even easy to write a questioning sentence. In MYP, the teacher should be most visible in the planning stage. Then he/she can assume the role of a guide. Planning is the only stage where the teacher demonstrates his/her content knowledge and the quality of his/her training." (T11)

T7, on the other hand, has expressed the following statement, which is included in the sub-theme of adapting to the approach, under the program theme:

"Everybody is quite accustomed. For instance, when I tell them that they will write an 80-word process evaluation report, nobody says "I won't," or finds it strange. As they were used to it from other classes, they easily integrated into my lesson. When I tell them that they will do research, examine the rubrics, nobody gets surprised. Everybody can do it easily, because a common language has emerged."(T7)

Development-oriented action plans

The participants not only revealed some facts about their adaptation processes to the program in the first year of the IB MYP process but also decided to find solutions to the problems they experienced during this adaptation process. The teachers' decisions made about the further applications can be subsumed under six main headings. The most prominent ones among these headings are working on evaluation, professional development, and teaching methods. In Table 8, the number of teachers stating an opinion related to these decisions is given.

Table 8. The Decisions Made by the Teachers for Further Applications in the First Year of IB MYP

Decisions about further applications	Frequency (f)	Teachers expressing
1. Doing research about the subjects to be taught		
Literature review	4	T16, T3, T1, T14, T6
Review of sample materials	2	T16, T10
2. Analysis of students' needs		
Determining students' level of readiness	2	T16, T13
3. Working on evaluation		
Planning the criteria	9	T13, T11, T9, T8, T3, T16, T15, T7, T2
Grading	4	T3, T15, T14, T6
Giving feedback in a practical manner	2	T13, T6
Planning process evaluations	2	T4, T14

Table 8. Continued

Decisions about further applications	Frequency (f) Teachers expressing	
4. Professional development		
Online training	4	T5, T11, T2, T10
Face-to-face training	4	T11, T8, T2, T6
Examining online curriculum center (OCC) resources	1	T10
Examining different school samples	6	T11, T2, T10, T6, T14, T4
Seeking support from more knowledgeable people	1	T2
Being more open to change, taking risk	6	T16, T12, T4, T7, T2, T10
Reflective thinking on teaching	3	T16, T7, T4
5. Organizing		
Revising the units and elaboration	5	T12, T2, T1, T14, T3
Better organization of time	4	T4, T2, T6, T1
6. Cooperation-oriented works		
Increasing interdisciplinary works	4	T9, T16, T14, T2
Increasing the opportunities to work in cooperation as a department	2	T16, T14, T7, T6
7. Teaching methods		
Using different and more student-centered methods	7	T9, T15, T4, T8, T4, T10, T6
Using diversified instructional applications	3	T9, T15, T4
Providing guidance to students in creating products to learn better	1	T15
Planning different works on learning approaches	3	T2, T3, T10
Offering activities that can inculcate international viewpoints of students	3	T12, T4, T14

When the main points about the decisions taken by the teachers for their subsequent applications in the first year of the IB MYP are examined, it is observed that the most mentioned decisions are gathered under the theme of making studies for evaluation. This is followed by decisions about professional development and teaching methods. Research on the subjects to be taught is emphasized. It is also observed that planning and grading the assessment criteria are prominent in the evaluation studies. In the theme of Professional Development, examining different school examples and taking risks with openness to change are underlined. Under the theme of organizing, teachers discussed the issues of revising and deepening units, while under the theme of collaborative work; emphasis was placed on increasing interdisciplinary work. Finally, under the theme of teaching methods, it is observed that the use of different and more student-centered methods is emphasized.

The following statement of T8 regarding the decisions for the subsequent applications of the participants was discussed under the sub-theme of using different and more student-centered methods:

"I must know students well; I need to see what they need more and what they are oriented toward. Some like visual materials, some others like audio materials. It is important to cater to the needs of different students."(T8)

The following statement expressed by T14 emphasizes collaborative work:

"I have worked for two years. I have changed the plans I made in the first year. If I again teach the 5th grade curriculum, I am planning to change it again because this is a process. For this process to lead to the best products, it needs time and cooperation."(T14)

While explaining their decisions about further applications, they also underlined the action stages to be followed to realize these decisions. When the action stages to be followed to realize the decisions of the teachers are examined, they can be grouped as individual, cooperation-oriented, and managerial action stages. Table 9 shows the participants' reflective thoughts on the action stages in the first year of IB MYP.

Table 9. Action Stages Targeting Development in the First Year of IB MYP

Action stages targeting development in the first year of Frequency Teachers expressing IB MYP	(f)	
1. Individual action stages		
Receiving support for foreign language	2	T16, T7
Developing methods for practical planning and evaluation processes and tools	7	T6, T2, T9, T10, T14, T16
Preparing plans in a more detailed manner	4	T9, T10, T4, T14
Participating in workshops	2	T3, T5
Planning works to strengthen the link between IB MYP and the Ministry of National Education	2	T8, T6
2. Cooperation-oriented action stages		
Taking initiatives to plan interdisciplinary units	8	T1, T3, T9, T7, T13, T10, T1, T6
Use of department working hours for planning	3	T8, T10, T14
Getting support to direct community service projects	2	T10, T1
3. Administrative action stages		
Watching practices in different schools	4	T12, T6, T5, T7
Reducing teachers' class hours	2	T9, T3
Increasing the number of class hours for classes	3	T2, T12, T4
Reducing extra tasks assigned	2	T1, T9
Organization of common, free and adequate time for planning by the management	10	T9, T5, T11, T16, T15, T4, T7, T2, T10, T1

Among these stages, the one most emphasized by the participants is related to practical tools and processes for the planning and evaluation processes. They talked about developing methods to be more practical on these issues. The subject most emphasized by the participants within the cooperation-oriented action stages is taking initiative in unit planning. When the administrative action stages are examined, it is seen that the subject most emphasized by the participants is that the administration should organize frequent and regular, free, and sufficient time for planning. Thus, it can be argued that in each sub-dimension, the issue of planning comes to the fore.

For example, the expression of T11 under the administrative action steps theme is as follows:

"We need more opportunities to participate in workshops. I make personal efforts, but administrative leave and opportunities will strengthen action stages." (T11)

T2 expressed his thoughts in a similar way and was discussed under the theme of administrative action steps:

"I need the support of administration in relation to class hours. I need more practical materials and ways of thinking in relation to this measurement and evaluation." (T2)

The participants underlined the opportunities brought about by working in a school implementing IB MYP during the process of reflective thinking. In Table 10, the themes obtained from the teachers' reflective thinking on opportunities are presented.

Table 10. Opportunities brought about by working in a school implementing IB MYP

Opportunities brought about by working in a school implementing IB MYP	Frequency (f)	Teachers expressing
1. Receiving various trainings	6	T16, T9, T12, T4, T10, T14
2. Gaining experience regarding international education	8	T16, T11, T12, T7, T2, T10, T1, T6
3. Gaining vision	5	T10, T3, T16, T15, T7
4. Doing works useful for the society	2	T9, T14
5. Looking at their own field from a different perspective	4	T12, T15, T1, T6
6. Learning new information and gaining new skills	6	T12, T3, T7, T10, T1, T14
7. Becoming someone to be preferred by other institutions	3	T6, T2, T14
8. Sense of satisfaction induced by giving useful education	3	T10, T15, T1

In this regard, the subject most emphasized is gaining experience regarding international education, followed by the subjects of receiving various trainings, learning new information, and acquiring new skills. In this connection, it can be argued that most of what has been emphasized by the participating teachers is related to their own professional development.

The expression of T6, which is included in the theme of becoming preferred by other institutions, is as follows:

"I have gained the experience that let me deliver my classes with MYP perspective when I start working in another institution. The opportunities provided by the institution contribute to some extent." (T6)

The following expression of T10 is associated with gaining vision:

"It helps me develop new visions. International perspective, international consciousness is very important. What makes me different in IB is this." (T10)

Discussion

In the current study, in the first application year of IB MYP, the teachers' reflective thinking on their teaching processes, perceptions of change, and action plans were investigated. The findings obtained from the analysis of the interview data revealed that the teachers, in the process of reflective thinking, they made general evaluations about the IB programs, evaluations about IB MYP, analyzed the strong and weak sides of the program, challenging aspects of the program. Additionally, they explained their decisions made in relation to the difficulties they experienced and their action plans and the opportunities brought about by working in an institution implementing this program. These findings are in line with the finding by Akdoğan (2014) mentioning that the processes that IB schools go through positively affect the development of teachers.

The subjects addressed by the teachers through reflective thinking in relation to the process of IB MYP at the end of a one-year period were subsumed under the following headings within the context of the general opinions about the IB programs: the philosophy of the program, learner profile, the basic elements of the program, the international view that aims to be inculcated in the program, the roles of learners, and community service. In addition, the participating teachers most emphasized the following aspects of the IB MYP program: conception of the curriculum, importance attached to working in cooperation, differences in the conceptions of learning and teaching, community service, incorporation of global subjects into the curriculum, and promotion of reflective thinking. This finding of the current study concurs with the finding of Smith and Auger (1986), which states that the existing practices of teachers should be analyzed to determine which parts of these practices can comply with the new

program. In addition to this, it is in line with Güler and Yaltrık (2011)'s finding mentioning that IB teachers need training on their practices.

In addition to the general opinions, the teachers also addressed the strengths and challenges of IB MYP during the reflective thinking process. The participating teachers explained the strengths of the program under two headings: strengths for students and strengths for teachers. In terms of strengths for students, they mentioned features such as making students more intellectually sophisticated and promoting international consciousness, and in terms of teachers they mentioned the features of the program such as supporting an instruction catering to students' differences and supporting the professional development of the teacher. Within the context of the challenging aspects of the program, they emphasized planning time, communication with parents, need for sample works, and planning and implementing measurement-evaluation, which are more related to the role of the teacher. These findings concur with the findings of Twigg (2010) that teacher face challenging elements while passing from didactic, traditional pedagogic approaches to international program applications. In a similar vein, the findings concur with Akpınar and Aydın (2010)'s finding revealing that although teachers have adopted their new roles in response to the changes, they do not find themselves sufficient in this regard exemplifies a challenging learning process for teachers.

The participating teachers also thought reflectively on the easy aspects of the program. Here the participants found applying their existing work to the new system easy. The teachers, as in the definition of Zeichner and Liston (1996), tended to place their applications into a framework during the reflective thinking process. This framework is associated with the schemes the teachers knew and were familiar with before. The participating teachers also made some decisions regarding the challenging aspects of the program and determined the action stages required by these decisions. The decisions, such as doing research about the subjects to be taught and analyzing students' needs, are decisions made to cope with the difficulties they experienced during the one-year application process. The teachers also thought reflectively on the action stages to be pursued to realize these decisions. While some of these action stages are at the individual level, others are related to cooperation of teachers and still others are related to measures to be taken and improvements and decisions to be made at the administrative level. This finding of the current study is supported by Hall and Hord (1987) pointing out that teachers' perceptions and concerns gradually develop in the change process and go through some personal, administrative, and cooperative stages. It is clear that besides some actions taken by teachers with their own initiatives, some regulations at the institutional level can also support the adaptation process. Establishing an organizational culture can help institutions realize the change and be effective and efficient in this process of change (Balci, 2002).

The teachers defined their reflective thoughts about the opportunities brought about by working in a school implementing IB MYP, and these opportunities include receiving training, gaining experiences about international education, looking at their own fields from a different perspective, developing new visions, doing useful work for the benefit of society, gaining new knowledge and skills, experiencing a sense of satisfaction derived from giving a good education, and having a teacher preferred by other institutions. Most of these opportunities are related to their professional development. Although all of the participating teachers stated that they had experienced some difficulties during the process of adaptation to the program, they also emphasized the positive, developmental, and satisfying aspects of being involved in this program. Given that workers' sense of commitment can play an important role at the community level (George & Jones, 2008), the participating teachers may have expressed these positive opinions as a result of their commitment to their institution and their positive attitudes toward professional development. If the negative attitudes of teachers who occupy a key position for any change to occur toward a change are defined as the most important obstacle in front of the change (Töremen, 2002), it can be understood why teachers' positive attitudes toward development and change are of significant importance in enhancing the quality of school and education (Kose & Lim, 2011).

Conclusion and Suggestions

This study aimed to investigate the process of reflective thinking of teachers who work at a school implementing International Baccalaureate (IB) Middle Years Program (MYP). Teachers' reflections are analyzed in terms of their expressions regarding their own development and change. The study aimed to reveal how they perceive change in this process and to examine the action plans they developed during the change process. The study reveals that teachers' perceptions of change are an important factor leading them to reflect and act on action in the process of change. Teachers' reflections about change have been realized both to review their current practices and to ensure their professional development. The scope of the study is limited to the reflective thoughts of the teachers working in a school implementing IB MYP during the first year. In this context, studies conducted with different school dynamics in different cultures may yield different results than in this study. In addition, different results can be obtained in different studies with variables such as teachers' branch, experience year, familiarity with IB MYP applications.

In the light of the findings of the current study, some suggestions can be made for practitioners and future research:

The current study is expected to provide some insights into future research and applications to be conducted to help institutions and teachers involved in international programs adapt to the process and to make the development process more qualified. The current study can also offer a methodological framework for the process of determining schools' need for teachers and the process of managing the change. From this aspect, this study can also offer some information about what kind of reflective thinking processes teachers go through in the process of change. Thus, it can offer an indirect understanding of the perceptions teachers hold in the event of change.

The current study did not investigate whether the differences in the experiences of teachers affect the process of adaptation to change or whether the processes of reflective thinking and the subjects on which reflective thinking is carried out vary depending on the branch. Future research can explore this. In the current study, there is also no information about how the teachers realized the action stages or how they reflected on the instructional process; such information can indicate applications influential on change.

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