CHAPTER VI
SUMMARY AND CONCLUSION

6.1 INTRODUCTION

Education and knowledge have been identified as having the potential for national and global development. In this century, intellectual capital is the most significant currency to participate and succeed in knowledge economies. Relevant knowledge combined with social and economic inclusion can provide a competitive edge for the countries. Moreover, there is a need for new knowledge, skills and collaboration across the world economies to solve global problems and face the challenges of a fast-growing globalized world.

In seeking to address the needs of global developments and a highly competitive globalized knowledge economy, there is increasing demand, not just in India but globally, for an education that develops competencies to deal effectively with the demands and changes of the world and that develops skills, values and attitudes to take action for the better world. In India, several policies and programs are launched to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. The new National Education Policy (2020) defines the purpose of the education system as to develop good human beings capable of rational thought and action, possessing compassion and empathy, courage and resilience, scientific temper and creative imagination, with sound ethical moorings and values. It aims to produce engaged, productive and contributing citizens to build an equitable, inclusive, and plural society as envisaged by our Constitution.

In India, various educational actors/ sponsors are responding to the gaps in the system and modern-day demand from the higher socio-economic groups for better quality education and a completely different style of education. International schools are coming up in a big way, responding to people's demands for quality and a different kind of education. The number of schools with IB has witnessed a nearly ten-fold increase during the last ten years (Mukul, 2015); among the IB programs, the growth of PYP is substantial.

6.2 INTERNATIONAL BACCALAUREATE PRIMARY YEARS PROGRAMME

The International Baccalaureate Primary Years Programme (PYP) is an international primary curriculum framework designed for students aged 3 to 12 who focus on developing the whole child as an inquirer, both in the classroom and the world outside. IB PYP aims to create internationally-minded people who can take action for the betterment of the world. Towards

fulfilling this educational goal, PYP espouses specific curricular, pedagogical and leadership approaches chosen from the growing knowledge base of education.

IB PYP acknowledges the importance of early years experience for future learning and adopts a social constructivist approach that directs the curricular and pedagogical practices. PYP believes that development and learning are interrelated; the transdisciplinary curriculum framework based on the social constructivist theory allows children for concept development that applies across and beyond subject-specific areas.

The International Baccalaureate Primary Years Programme (IB PYP) adopts a transdisciplinary curriculum for primary education which conveys that learning is authentic and relevant across subject areas and transcends the confines of subject areas to connect to the real world" (IBO, 2012). The transdisciplinary approach involves the organization of curriculum and instruction around authentic student questions and global issues where concepts and skills are developed through real-world context. Inquiry is at the heart of the transdisciplinary approach as students seek answers to the questions raised by the curriculum and themselves. The PYP is designed through six transdisciplinary themes with global significance- for all students in all cultures, offering students opportunities to explore the commonalities of human experience. The six transdisciplinary themes are: Who we are, Where we are in place and time, How we express ourselves, How the world works, How we organize ourselves, Sharing the planet.

In PYP, teachers are expected to constantly develop, assess and transform a transdisciplinary curriculum into an inquiry-based teaching plan. This requires teachers to have generic skills such as interpersonal and process skills and specific expertise such as curriculum design and coherence, subject-matter knowledge and pedagogic knowledge within the curriculum design process (as cited in Huizinga, Handelzalts, Nieveen & Voogt, 2014).

PYP promotes inquiry-based teaching-learning to translate the transdisciplinary curriculum into practice. The IB posits the guided inquiry which is based on Vygotsky's zone of proximal development, where a facilitator leads a student from a place of successful independent learning through varied learning experiences to another level and the student must expand upon his or her learning (Skirrow, 2009). In IB PYP, inquiry is both an approach and a learning outcome. The students investigate the transdisciplinary themes through structured, purposeful inquiry, action and reflection on learning various subjects (Science, Mathematics, Social Science, Language etc.), concepts, skills and attitudes, with more emphasis given on student-generated inquiry. Transdisciplinarity, thematic approach and inquiry go hand in hand in the

teaching-learning process. The teachers play the role of the facilitator and help the students to develop the skill of questioning, giving evidence, drawing conclusions and taking action.

The main aim of all the learning in PYP is to develop international-mindedness among the community of learners. International mindedness (IM) is the key concept underpinning all the IB programs and is central to its vision and mission, promoting intercultural understanding and respect. In IB the construct of international mindedness is described as a set of learning outcomes: the values and attributes mentioned in the Learner Profile. The attributes described in the Learner Profile are relevant to students across all age groups and are achievable by all primary years students. The ten attributes of the IB Learner Profile are Inquirers, Knowledgeable, Thinkers, Communicators, Principled, Open Minded, Caring, Risk Takers, Balanced, and Reflective. The present study captures how the practitioners interpret and implement LP and thus promote international-mindedness.

Without a doubt, the PYP curriculum is rigorous and challenging to implement, the schools need to create a conducive environment, processes and administrative structures to perform a host of activities for curriculum development, implementation and evaluation to meet the standards of IB. In order to study several interrelated concepts and processes, the researcher developed a conceptual framework for curriculum management. The following section details the conceptual framework laid out for purpose of the study.

6.3 CURRICULUM MANAGEMENT

The present study defines curriculum as knowledge, skills, concepts, processes, attitudes and values to be taught and learned at the appropriate levels. The main components of the school curriculum considered for the study are written curriculum, taught curriculum and assessed curriculum.

In order to successfully implement any educational program at a school level, the curriculum needs to be well managed to get the best learning outcomes. Curriculum management is ensuring the written, taught, and assessed curricula are aligned and gathering information for evaluating the effectiveness of the curriculum. Curriculum management focuses on relevance, consistency, practicality, effectiveness, reiterative process and sustainability, and whether learners achieve the expected learning outcomes. For the present study, Curriculum management is conceptualized as a reiterative process of curriculum development, implementation and evaluation. Pedagogical leadership in the school ensures the effectiveness of curriculum management.

Curriculum Development

Curriculum development is one of the primary functions of the IB school as each school needs to develop its curriculum (written, taught and assessed curriculum) based on the guidelines provided by the IB. Curriculum development is defined as a planned, purposeful, progressive, and systematic process to develop a framework that guides all the teaching-learning activities in the school to create positive improvements in students. Curriculum development is a complex but systematic process that not only focuses on planning the content to be delivered but also plans the pedagogical approaches and assessment techniques to be used during teaching-learning.

Curriculum development has a broad scope because it is not only about the school, the learners, and the teacher, it is also about the development of society in general. Curriculum development not just helps the teachers by setting directions for teaching-learning at the micro level but also sets the direction for the whole school organization at the macro level. The main elements of curriculum development are goals and objectives, content or subject matter, methods or learning experience and evaluation methods. During the curriculum development process, the following areas need to be considered: the social aspirations of the society, three domains of learning- cognitive, psychomotor and affective, the individual differences of students, levels of learning (taxonomy), a body of knowledge, skills, values that are essential in the society (Tyler, 1950).

Several factors influence curriculum development: the philosophy of education, educational psychology, and societal, political, and technological factors. The general principles of curriculum development are the principle of child-centredness, community-centredness, activity-centredness, variety, co-relation, conservation, comprehensiveness, creativity, flexibility, utility, and forward-looking. The curriculum developers need to consider all these factors and principles along with specific PYP principles while developing a school-based curriculum in PYP.

The IB PYP schools need to produce a written document called a Program of Inquiry (POI), which serves as the school's written curriculum. This written curriculum is the product of the curriculum development process. The POI is a written document comprising the six transdisciplinary themes running horizontally and the age groups running vertically. It creates a trans-disciplinary framework that allows students to "step up" beyond the confines of learning within subject areas. Each unit on the Program of Inquiry consists of a central idea, key

concepts, related concepts, and lines of inquiry. The IB PYP curriculum includes five essential elements which need to be included in the POI. They are knowledge, concepts, skills, attitudes and actions.

The guidelines provided by IB for developing the POI are as follows. (IBO, 2009)

- Ensuring all the five elements are interwoven according to the age and development of the students in the six transdisciplinary themes.
- Ensuring the content developed is relevant and significant to the students.
- Addressing the local needs of the community and inclusion of the study of the home country, culture of individual students and the culture of others, including their belief systems.
- Providing opportunities for reflection on human commonality, diversity and multiple perspectives.
- Providing opportunities for developing ten learner profile attributes.

The present study aimed to identify the key factors influencing curriculum development and outline the procedures for developing a school-based curriculum based on the IB guidelines to evolve a curriculum development model for IB PYP.

Curriculum Implementation

Curriculum implementation is of utmost importance as the students who are the beneficiaries of the curriculum are directly involved. Curriculum implementation focuses on the processes and practices through which a curriculum is implemented, and the implemented curriculum constitutes the school's taught curriculum. The learners are at the centre of curriculum implementation, the implementation process involves facilitating the learner to acquire knowledge, skills and experiences. Several factors influence the implementation, such as resources, facilities, teachers, the school environment, culture, ideology, instructional practices and assessment practices.

Curriculum implementation is a tedious process that requires meticulous planning and competencies to deliver the curriculum and fulfil the educational institution's mission. Planning for curriculum implementation addresses the needs and changes necessary and the required resources for effectively implementing the intended curriculum. Three components need to be considered in the planning process: People, Programs and Processes. In PYP, the teachers are

the curriculum implementors; they review the written curriculum (POI) and implement the curriculum.

The key components of curriculum implementation are – context, culture, resources and classroom practices. Each component is important and is interrelated with the other.

The context of the school has a substantial impact on the teaching-learning process. The school context can be categorized into two aspects one is the visible aspects and the other is the invisible aspects. The visible aspects include the physical classrooms and the school's geographical location- the city, state, and country. The invisible or non-tangible aspects of context include classroom cultures- group dynamics, institutional culture, local expectations of/ attitudes to education, national educational culture, and socio-political belief systems. The present study explores the contextual factors and differences and their impact on PYP curriculum implementation.

The classroom and institutional culture impact the teaching-learning process. The schools and teachers need to constantly create conducive learning culture to nurture a community of learners. Each school creates a culture based on its ideology and philosophy of education, and repeated practices lead to the establishment of a certain kind of culture. Research shows that a robust curriculum combined with strong school cultures leads to sustained academic excellence. The core elements of school culture include shared beliefs and values, behavioral expectations and norms and tangible manifestation of these norms and values. Although there are challenges in measuring the culture within the school system, it is possible to capture distinctive culture through qualitative approaches, in this line, the study explored the learning culture prevailing in PYP that impacted curriculum implementation.

Resources- material and human resources play an essential role in curriculum implementation. The schools need to ensure adequate resources are available and accessible to all the stakeholders to implement the written curriculum. The utility of resources needs to be constantly ensured by teachers, coordinators and principals. Regarding material resources, the schools need to provide spacious classrooms, laboratories, workshops, libraries and sports fields to create an environment for holistic learning. Time is one of the critical resources to be well managed during curriculum implementation. Human resources play a vital role in curriculum implementation. An effective staffing process needs to be in place to ensure human resources are utilized to the highest potential.

The curriculum implementation concerning classroom practices involves key components. They are teachers in the role of facilitators, Students as active learners, and Taught curriculum and classroom environment. The assessment practices are included in the student assessment section in the curriculum evaluation component of curriculum management.

In IB PYP, teachers plan their classroom practices using PYP planners. PYP planner is a guiding document with a set of questions through which teachers plan and reflect on the content delivered, pedagogical approaches and assessment techniques used in the classroom. The teachers are solely responsible for planning the transdisciplinary teaching and learning using the PYP Planners based on the School's Program of Inquiry (POI).

The present study aimed to investigate the context, culture, and available resources and their effects on curriculum implementation in PYP. Classroom practices were studied, and various interrelated components were identified to evolve with a generic model for curriculum implementation in IB PYP.

Curriculum Evaluation

Curriculum evaluation in the educational scenario is the least practised but most important. Curriculum evaluation is the process by which the school investigates whether the planned courses, activities, teaching strategies and assessment techniques produced the desired results. The school needs to have a set of criteria and predetermined methods for curriculum evaluation. Hilda Taba in Talla (2012) suggests specific criteria for the evaluation of the curriculum- 1) Consistency with the objectives 2) Comprehensiveness 3) Sufficient diagnostic value 4) Validity 5)Unity of evaluative judgment 6) Continuity. There are various methods for curriculum evaluation. It depends on how the data is collected, analyzed and interpreted and which perspective is used for evaluation and decision-making. Lee Cronbach in Talla (2012) has identified two approaches- the scientific and the humanistic approaches.

Evaluation of the curriculum is done in various stages with a different purposes. Evaluation is done before curriculum development, during and after curriculum development (before curriculum implementation) to check the continuity and relevance of the developed curriculum. Evaluation is also done during curriculum implementation, including the evaluation of teachers' pedagogical practices and the formative assessment of students. During this stage, the evidence is gathered to analyze and decide on the curriculum. Evaluation is done after implementation based on the data gathered during implementation and summative assessments of students. The

major actors involved are the principal, coordinator, teachers and students. Parents are also considered for evaluation purposes.

For the present study, the curriculum evaluation consists of two components- the student assessment and the curriculum evaluation. The student assessment is an integral part of teaching-learning that provides an understanding of whether the curriculum's aims and objectives are fulfilled. The assessed curriculum deals with the assessment of actual learning that takes place in each student. There is a range of assessment strategies that helps the teachers to understand the learning outcome, learners and their learning journey, this further helps the teachers in modifying the curriculum based on the students' needs and attributes. In PYP assessment component is divided into three related areas – Assessing, Recording and Reporting.

In IB PYP, curriculum evaluation is done as a part of program evaluation. The Programme evaluation is a monitoring process through which IB ensures the standards of PYP schools. The evaluation takes place in three areas: Philosophy, Curriculum and Organization. The steps involved in IB program evaluation are 1) planning self-study, 2) Self-study, 3) Submission of self-study questionnaire 4) IB evaluation visit.

The present study investigated the student assessment and curriculum evaluation process in PYP and identified key components and practices adopted by the schools for effective curriculum evaluation.

Pedagogical Leadership

The concept of pedagogical leadership came into being with the basic assumption that in an educational organization, leadership should be informed by pedagogy, as pedagogy is the core activity and the purpose. The principals and teachers within the educational organizations need to subscribe to pedagogy, and hence they need to assume pedagogic leaders' roles to improve student learning.

Pedagogical leadership is based on dialogue, not monologue and the learners are important participants in the discussion and decision-making. It also recognizes the professional primacy of the stakeholders and connotes active and reflective learning and professional, consultative decision-making at the classroom and school levels. The pedagogic leaders create a democratic, reflective and collaborative environment where learning is based on inquiry and dialogue and is contextualized to the learner's social, cultural, and political environment.

In the literature, there are four major perspectives of pedagogical leadership. The first perspective views pedagogical leadership as learner-centred leadership that promotes the development of teachers and students. Here the development of three components is in focus – teachers, students and the curriculum, which will lead to the development of human capital in the school (Sergiovanni, 1998).

The second perspective views leadership's focus primarily on pedagogical practices. Pedagogical leadership shifts away focus from outcomes and outputs to the process and development of pedagogical courses of action that are relevant and meaningful to all learners from different contexts.

The third perspective of pedagogical leadership emphasizes the principals' role, pedagogical competency, and professional development. Many scholars perceive that principals as pedagogic leaders need to exert direct influence on pedagogical practices by demonstrating competency in pedagogical practices. In short, pedagogical leadership stresses principals/ school leaders taking direct responsibility and involvement in curriculum and pedagogy to improve the quality of learning in the school.

The fourth perspective recognizes the influence of community on students learning; thus, pedagogical leadership is viewed as a collaborative process among teachers, learners, and the community to achieve improved learning outcomes. Pedagogical leadership considers the relationships among the learner, learning, learner's identity and community ecology, thus promoting community partnership to enhance students learning. Pedagogic leaders hold the responsibility for community development through meaningful collaborations and partnerships.

IB PYP promotes distributed leadership as an effective model for sustained leadership. Hargreaves (Hargreaves & Fink, 2005) claims sustainable leadership is best supported by distributed leadership model where deeper and broader pools of leadership talent are developed within the school. Heikka (2014) has identified five dimensions of distributed pedagogic leadership. 1) Enhancing shared consciousness of visions and strategies between the stakeholders 2) Distributing responsibilities for pedagogical leadership 3) Distributing and clarifying power relationships between the stakeholders 4) Distributing the enactment of pedagogical improvement within the organization 5) Developing strategy for distributed pedagogical leadership.

Pedagogical leadership plays a crucial role in curriculum management in IB PYP. Thus, the present study investigated the pedagogical leadership in PYP schools. Several components of pedagogical leadership were identified, and their interrelation was established to evolve a generic model for pedagogical leadership.

The conceptual framework helped the researcher to understand the nuances of the IB PYP program. It provided an understanding of key components of curriculum management-curriculum development, curriculum implementation, curriculum evaluation and pedagogical leadership and interrelated components. The robust conceptual framework aided the development of relevant research tools and further facilitated the plausible interpretations of the findings.

6.4 RATIONALE OF THE STUDY

IB expansion in India is an emblematic story of educational globalization. The global actors (international education programs) interact with the national context and actors to create new practices/ institutional forms that alter the existing educational structures and practices. According to the literature, the increase in international education may be a response to the economic and labor market. According to Cambridge and Thompson (2004), globalized international education serves a market that requires the global certification of educational qualifications, which facilitates educational continuity for the children of host country families with aspirations toward social and global mobility. Many parents believe that IB programs offer a robust curriculum that develops students' cultural literacy (MacKenzie, 2010) and competencies to compete in a global market (Hayden, 2011).

Consequently, the number of international and national schools adopting international curricula is growing at an unprecedented rate. The IBO is the most popular and reputed organization providing international educational programs at the school level across the world. Initially, IB provided an internationally transferable school qualification for expatriate, globally mobile families (Resnik, 2009), in the last few decades, the IB has grown exponentially worldwide and is offered in around 5000 schools in more than 150 countries (IBO, 2018). In India, there is a tenfold increase in the number of IB schools with PYP being the most popular program offered by private schools.

The increase of international schools in India, especially the IB, is a new phenomenon. In a context where the government is struggling to provide quality education for all, private unaided schools are proliferating at an increased rate, accounting for 40% of the enrolment of students

(DISE, 2015). Private education in India plays a significant role in meeting the skill demand of the Indian and global economies. IB education is in high demand by parents as they perceive that IB education prepares the students with relevant skills, knowledge and attitudes to excel in the global economy (Pushpanadham, 2013). With its significant presence in policy and curricular reform at the global level, IBO has influences beyond the immediate stakeholders. The expansion of IB in India certainly impacts the educational hierarchy, accessibility, structure, policy, practices and many other unknown areas. This study responds to this as it aims to illuminate the various curricular and pedagogical practices that define the contextualization of the IB PYP curriculum in India.

The mission statement of IB is - The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect (IBO, 2018). To this end, the IBO works with schools to develop and implement engaging programs for international education. The IB expects its authorized schools to set explicit goals to promote global citizenship, international mindedness and intercultural understanding through discussing global-local issues and studying different languages and cultures. Kauffman's (2005) research suggests that the inclusion of intercultural education in IBPYP schools is variable. Further, Hayden and Thompson (1995) suggest that not all international schooling, including the IB programs, necessarily or automatically become international in orientation. Explicit teaching about international mindedness may likely be more effective in a culturally diverse setting. Reflecting on the IB schools in the Indian context, the demographics have increasingly become local students from higher socio-economic families and local teachers with a less internationally diverse population. The educational aims pronounced in NEP 2020 stress developing strong national identities with global mindedness among young learners. The IB school context makes an interesting case to explore how the schools are organizing their curricular and pedagogical activities to promote international mindedness while reinforcing national identities in their school community.

It is assumed that IB schools are ideologically driven, with a commitment to intercultural, global citizenship education with quality curriculum and pedagogy as the top priority. A study conducted on IB schools in India noted that the majority of schools are private unaided schools, and IB programs are utilized to provide choice and market differentiation (Guy, 2010). There is no government body in India to regulate/ monitor international schools (Quality Council of India, 2009). Thus, several aspects related to education aims and priorities, curricular and

pedagogical practices, social inclusion, and model for education in international schools are undiscovered.

IB programs are known for their curricular and pedagogic rigor, and many researchers believe that IBO provides the best of all post-modern educational practices for teaching learning (Dunning, 2002; Freeman, 1987; Gehring, 2001; Kuikman, 2002). The studies conducted in PYP across the globe have shown that teachers valued and enacted transdisciplinary teaching and pedagogical principles of IB (Stillisano et al., 2011; Twigg, 2010; Savage & Drake, 2016). Some qualitative studies have found that not all IB teachers employ a student-centred, inquiry-based approach; they suggested that teachers' nationality might be one of the factors related to their instructional style (Pendergast, Dole & Rentoule, 2014). For instance, in a study conducted in Turkey, the IB DP teachers reported that they struggled with IB's student-centric approach as it differed from the teacher-centric, didactic approach common in their country (Martin, Tanyu & Perry, 2016). With the expansion of IB PYP schools in India, it is imperative to understand how the practitioners interpret and practice transdisciplinary, inquiry-based PYP curricula in a context where teachers are associated with traditional educational practices dominant in the national system with press given on disciplinary teaching and standardized testing.

IB PYP program is a rigorous and challenging program for students and schools. It is the sole responsibility of the schools to create conducive conditions, structures, and processes that can sustain in order to implement the PYP curriculum effectively. This requires sustained investment and faculty commitment toward the IB PYP's educational philosophy and principles.

Research on international education in India is still emerging; not surprisingly, there has been very little research focused on IB PYP in the Indian context. Considering the rapid growth of IB PYP schools in India and previous research highlighting how the IB influences educational practices, it was thus crucial to investigate how the IB PYP curriculum is contextualized in the schools within the broader socio-cultural-political and educational realities of India. As such, this study explicitly explored how the practitioners (across a broader sample of PYP schools) interpreted the PYP curriculum and how the schools managed the curriculum by investigating the curriculum development, implementation, evaluation and pedagogical leadership in PYP schools.

The present study adds to the literature base related to PYP and, more general, education in modern-day emerging India. The PYP model for primary education is accepted worldwide and appears to be a good model for learning in the complex global world. In India, the PYP curriculum is getting a positive response from parents, students and teachers. Also, the Central Board of Secondary Education (CBSE), the Government of India, has started an international curriculum- CBSE-I, as an initiative toward internationalizing the Indian curriculum and has components of IB PYP (Pushpanadham, 2013). The time is, therefore, ripe for investigating comprehensively how the IB PYP curriculum is adopted in the Indian context, what the conditions and structures created in the schools to support the implementation of PYP are, and what the processes and activities involved in the curriculum management of PYP. The findings of this research will be helpful for IBO and key stakeholders such as school leaders and teachers who aspire to adopt curricular and pedagogical principles incorporated in PYP.

Further, the findings will be helpful for researchers and policymakers and families. In a broader sense, this study adds to the evolving research on the diffusion of IB programs (a global product from IBO) in a national context, especially in a non-western context. The adoption of IB programs and specific PYP curriculum in Asian countries (non-western) is increasing yearly. Most previous studies on the PYP curriculum are conducted in the western context, concentrated in the US, Europe and Canada. Thus, the findings of this research will significantly contribute to the understanding of the strategic adoption and assimilation process of schools implementing the IB PYP curriculum in a non-western, national context.

6.5 RESEARCH QUESTIONS

- How do the IB schools in India contextualize the IB PYP curriculum?
- How do practitioners interpret and implement IB PYP's educational principles?
- What are the conditions and curricular processes created by the school for the effective implementation of IB PYP?
- What are the challenges faced by the schools in implementing the IB PYP curriculum?

6.6 STATEMENT OF THE PROBLEM

A Study on the Curriculum Management of International Baccalaureate Primary Years Programme in India.

6.7 RESEARCH OBJECTIVES

1. To study the curriculum development in IB PYP schools.
2. To study the curriculum implementation in IB PYP schools

3. To study the curriculum evaluation in IB PYP schools.
4. To study the students' perceptions on PYP
5. To study the pedagogical leadership and professional challenges of PYP practitioners

6.8 EXPLANATION OF THE TERMS

The study includes certain keywords which have various explanations in the literature, thus to enhance precision, the keywords are explained and operationalized for the study

Curriculum Development: Curriculum development is a planned, purposeful, progressive, and systematic process that involves the development of the content of the curriculum, planning the pedagogical approaches and assessment techniques in order to accomplish the vision of IB PYP. For the present study, the curriculum development process will be studied with respect to the Programme of Inquiry, PYP planners developed by the school.

Curriculum Implementation: Curriculum implementation refers to classroom transaction of the planned content, pedagogical practices, and formative assessment techniques. In the present study, the curriculum implementation is studied in terms of pedagogical practices, student-teacher interaction and classroom environment.

Curriculum Evaluation: Curriculum evaluation is the process in which the school investigates whether the planned courses, learning experiences, and pedagogical practices produced the desired learning outcomes. For the present study, curriculum evaluation refers to how the self-study process, student assessment and IB evaluation visit.

Pedagogical Leadership: Pedagogical leadership is an enabling process that exercises distributed leadership for designing and implementing curriculum by creating a democratic, collaborative and reflective environment in the school.

Professional Challenges: Professional challenges refer to the challenges faced by principals, PYP coordinators, and teachers in effectively managing the PYP curriculum in the school within the broader Indian educational context.

OPERATIONAL DEFINITION OF THE TERMS

Students' Perception: Students' perception refers to the responses provided by students on the questionnaire related to school, teachers, curricular activities and their behaviour in general.

Teachers' Perception: Teachers' perception refers to the responses provided by teachers on the questionnaire related to curriculum management in PYP.

6.9 DELIMITATION OF THE STUDY

The study was delimited to the IB PYP schools which have completed two cycles of program evaluation by the International Baccalaureate Organization.

6.10 RESEARCH METHODOLOGY

The paradigm of pragmatism guided this study. The conceptual framework on curriculum management in PYP provided an understanding of the various interrelated concepts that need in-depth investigation from different sources through different methods to understand curriculum management in PYP comprehensively. Also, the review indicated the advantage of using both quantitative and qualitative methods. As the quantitative and qualitative methodologies are grounded in different paradigms, the pragmatic paradigm allowed the researcher to use different methods in different paradigms that emphasized shared meanings and pursued joint action (Morgan, 2007). Moreover, adopting a pragmatic paradigm allowed the researcher to develop a shared understanding of curriculum management in PYP.

This paradigm "is not committed to any philosophical stance and is pluralistic and oriented towards 'what works and practice" (Creswell & Plano Clark, 2011). Tashakkori and Teddlie (1998) suggest that pragmatists study research problems in different ways that they deem appropriate. Therefore, the main reason for adopting a pragmatic position in this study was that it allowed the researcher to have a pluralistic stance of gathering all sorts of data in order to understand best how PYP schools contextualized IB curriculum in the Indian context and various curricula, pedagogical and leadership practices prominent in PYP schools.

The mixed methods research represents a pragmatic paradigm combining a quantitative approach with a qualitative frame (Creswell & Plano Clark, 2011). The present study aimed to study a host of interrelated and complex processes, concepts and activities related to curriculum management in PYP schools. Thus, a mixed-method approach was employed as it provided strength in examining the complexities of processes and activities within PYP schools.

Mixed methods research is a methodology that incorporates multiple methods to broaden the understanding of the research problem in an appropriate and principled manner (Bryman, 2012; Creswell, 2015; Creswell & Plano Clark, 2011), which involves collecting, analyzing, interpreting and reporting both qualitative and quantitative data. The mixed-methods research helped the researcher derive objective findings through quantitative approaches and understand the situation through indicative results through qualitative approaches. Specifically, as described in the data collection section, using both quantitative and qualitative approaches to

answer the same research question produced greater certainty and broader implications in the conclusion (Maxwell, 2016; Morgan, 2014). Moreover, using both quantitative and qualitative data and sources is "a form of triangulation" that enhanced the validity and reliability of the present study (Merriam, 1988). Further, interweaving quantitative and qualitative methods facilitated the researcher to produce a complete picture and provide an opportunity to understand divergent or complementary views within the research context. The outcomes of integrating both methods are of great value as they not only enrich our understanding of curriculum management in PYP schools but also open new avenues for future inquiries.

The selection of a proper mixed-method design was crucial to address the research questions as intended by the researcher. The key considerations, justification and explanation of the research design adopted in the present study are detailed in the following section.

Research Design

Three major aspects were considered while selecting the mixed-method research design. The first is about the relative importance of quantitative and qualitative approaches for answering research questions (Plano Clark & Ivankova, 2016). The second is the level of interaction between the quantitative and qualitative data set and the third is the timing of the quantitative and qualitative approaches, timing refers to "the entire quantitative and qualitative strands, not just data collection" (Creswell & Plano Clark, 2011).

Considering the three criteria, a convergent parallel design was adopted for the study. Here qualitative and quantitative methods are mixed to obtain the triangulated results in this design. It is an approach in which two data sets are combined to get a complete picture of the issue being explored and to validate one set of findings with the other (Creswell and Plano Clark, 2018). At first, two types of data sets were collected using quantitative and qualitative tools independently at the same time, and secondly, they were analyzed independently using quantitative and qualitative analytical approaches. The integration was done after the independent analysis of two types of data sets. The following figure illustrates the convergent parallel design employed in the study. This design facilitated an in-depth understanding of curriculum management in IB PYP schools in India.

Population

The population of PYP schools in India at the time of the study was 71(IBO, 2019), at present there are 124 schools offering PYP. The schools had varied characteristics in terms of

demographics, affiliation, establishment year, and cycles of program evaluation by IBO and regions.

6.11 SAMPLING PROCEDURE AND SAMPLE

The aim of this research was to gain an in-depth understanding of curriculum management, it was important to select schools that have significant experience in implementing and sustaining PYP in their schools. Thus, purposive sampling was adopted with a criterion for sample selection. The criterion was that the schools should have completed two cycles of program evaluation for PYP by IBO. At the time of sampling, a total of nine schools were identified fulfilling this criterion spread across northern, western, and southern regions. One school from each region was selected for the study forming a group of three schools.

Sample for quantitative strand

The Sample for the quantitative strand consisted of teachers, students and classrooms observed. For the teacher sample, three hundred and thirty-five teachers were sent the questionnaire and two fifty teachers responded. Among these teachers, ten homeroom teachers from each school were selected for classroom observation making a total of thirty classroom observations. For the student sample, a hundred students of grades 4 and 5 from each school were selected making a total of three hundred students.

Sample for qualitative strand

The sample for the qualitative strand consisted of principals, PYP coordinators, teachers, students and classrooms observed. Two principals, three PYP coordinators, and thirty teachers participated in the interview; thirty classes were considered for observation. It has to be noted that all teachers who participated in the interview participated in the classroom observation. For the student sample, ten students from each school were selected by the teachers, a total of thirty students (Male-14, Female- 16) participated in the focus group interview.

6.12 RESEARCH TOOLS

In line with the convergent parallel mixed method design, research tools were developed by the researcher to gather both quantitative and qualitative data separately.

Development of Research tools

A framework was developed by the researcher from which relevant tools were developed to obtain quantitative and qualitative data. The framework was based on IB PYP program features as well as previous research on curriculum development, implementation, evaluation, and

pedagogical leadership. A total of five tools were developed by the researcher to collect quantitative and qualitative data from different sources.

- Curriculum Management Teacher Perception Scale (CMTPS)
- Questionnaire for students (QS)
- Classroom Observation Schedule (COS)
- Interview Schedule (IS)
- Focus group interview guide (FGI)

6.13 DATA COLLECTION

Consistent with mixed methods convergent parallel design, quantitative and qualitative data were collected in the same phase of data collection that produced both numeric and textual data.

Quantitative data collection

Quantitative data on curriculum management was collected through the perception scale- CMTPS. In total three hundred and thirty- five forms were sent to practitioners in PYP including the coordinator and specialists. A total of two hundred and fifty responses were received yielding to 74.6% response rate.

The student questionnaire was administered in person at each school. The target sample was 300 students and all the students responded to the survey. Later the forms were collected and compiled manually.

Classroom observations were carried out in thirty classes. Teachers were notified of the specific day when observation would be in their classroom, however, care was taken that observations were made in a natural setting.

Qualitative data collection

Face-to-face interviews were conducted with principals, coordinators and teachers to collect data on curriculum development, implementation, evaluation, and pedagogical leadership in PYP. A total of thirty teachers, ten from each school, three PYP coordinators, and two principals were interviewed.

Focus group interviews with students were conducted at each school. In total, thirty students from grades 4 and 5 participated in the focus groups across all the schools.

The researcher spent almost a month in each school, during which observations were made on several aspects of PYP practices along with classroom observations. The non-participant observation was conducted throughout the study. In each school ten classes were observed.

Apart from the classroom observation, researcher observed students and teachers interaction in library, play area and recession. During these observations, a comprehensive field notes were taken related to IB features and research questions.

6.14 DATA ANALYSIS

Data analysis in mixed methods research consists of analyzing the quantitative data using quantitative methods and the qualitative data using qualitative methods separately. In mixed methods, the analysis involves combining both databases using approaches to integrate the qualitative and quantitative data. The researcher analyzed the data in response to the research questions. The researcher followed various steps for both quantitative and qualitative data analysis: preparing the data, exploring the data, analyzing the data, representing the analysis, interpreting the analysis, and validating the data and interpretations of the results.

Quantitative Analysis

Quantitative analysis was completed using both descriptive and inferential statistics. Once the data set was complete and values were within the range, descriptive statistics for questionnaire responses (teacher, student) and observation instruments were calculated. This includes frequency counts and mean-wise ranking. Analysis of the perception scale- teacher survey included both descriptive and inferential statistics. It was observed from the literature that, teacher's experience and professional development has an effect on their perception of teaching and learning, thus it was important to examine if there were any significant difference in the perception of teachers on curriculum management in IB PYP. Hence, a non-parametric Kruskal Wallis test was performed to determine whether there was a statistically significant difference between responses on teacher perception scale. Multiple Kruskal Wallis test values were calculated for two independent variables separately one for teaching experience in PYP and the other for IB professional development level. Although multiple Kruskal Wallis tests were performed, the values do not claim to generalize the results to the population but these tests were used to simply highlight statistically significant differences. Finally, the results were represented in statements, tables and figures.

Qualitative Analysis

Qualitative content analysis approach was adopted for the analysis of the qualitative strand. Qualitative content analysis aims to systematically describe the meaning of materials in a certain respect based on the researcher specified from research questions (Schreier, 2012). The coding process in this approach focuses on finding categories and themes from the data as opposed to theory building in grounded theory approach. In this approach, there is the

flexibility to use inductive or deductive approaches or a combination of both approaches in the data analysis process. In this study, both inductive and deductive approach was utilized where codes, and categories were drawn from the data and some were predetermined codes derived from literature/ research. NVivo was used for qualitative analysis. The qualitative analysis involved the following stages: Familiarization, Data Reduction, Coding and Data display, Representation of data, Data integration and interpretation.

In the present study, both data and method triangulation was achieved through the verification of results from multiple data sources and methods. The method triangulation was achieved by adopting a convergent parallel mixed method design. The results from the quantitative and qualitative analysis were triangulated by comparing, contrasting, and blending to piece together a story about curriculum management in IB PYP schools in India.

6.15 VALIDITY AND TRUSTWORTHINESS

In quantitative research, validity is mainly taken care of by validating the instruments/tools used for data collection. In the present study, all the tools were content validated through expert review and a pilot study. In qualitative research activity, the validity is considered as a matter of trustworthiness the evaluator and different stakeholders place into it. the researcher-built validity into different phases of research from research design, tool development, data collection, data analysis to interpretation. Utmost care was taken at each step of data collection, and transcription, and interpretation, in some cases the interpretations were peer-reviewed. To show the dependability between the data and the findings, an audit trail was maintained. Interview data, transcripts, field notes, memos, and any correlated data were reviewed, categorized, and systematically organized for research analysis. The mixed-methods approach used in the study gave strength to the research as it allowed for multiple methods and data sources to arrive at the findings. All these elements increased the validity and trustworthiness of the study.

6.16 MAJOR FINDINGS

1. The study revealed that IB schools are situated in urban/semi-urban localities established by private bodies with large campuses, well-equipped labs, libraries, adequate learning resources, and a wide range of amenities. These schools catered to the elite social class.

2. The study revealed that in the sample schools, the majority of the teachers were female, having multidisciplinary academic backgrounds with teacher education certification (B.Ed.- 64%, IB certification- 24%).

3. It was found from the study that all IB schools adopted a school-based curriculum development process by strictly adhering to the guidelines of the IB PYP framework developed by IBO. A coherent and contextualized inputs in the curriculum were found interesting and challenging.

4. The study revealed that curriculum development in IB schools is a dynamic process in which different stakeholders such as principals, PYP coordinators, teachers, and students actively engage in developing transdisciplinary themes, integrating learner profile, and planning inquiry-based learning experiences, assessment practices, and learning outcomes. It was found that the curriculum development in IB schools is a collaborative and cooperative endeavor in which discussions, negotiations, and collective consensus were essential elements.

5. It was observed that the schools aligned IB international curriculum with the national curriculum framework to facilitate the students' further academic progression. Extensive mapping of the curricula (PYP and national curriculum) in the sample schools overshadowed the essential elements of the international IB curriculum (intercultural education and global citizenship education).

6. Parental aspirations and expectations were found to be major external influencing factors while taking decisions in curriculum development. Parental expectations reflected the standardized assessment practices and their urge for their children to perform in such examinations.

7. It was observed that most parents preferred PYP for their wards and then migrated them to other national boards for their secondary and higher secondary education. Therefore, the transfer rate from PYP to MYP was found to be low.

8. It was found from the study that the majority of the teachers (85%) have the knowledge and positive attitudes toward the IB curriculum. This was observed through their practices in creating a positive classroom environment, developing age-appropriate inquiries, differentiated teaching and assessment, concept-based learning, and collaborative-activity-based learning cultures.

9. The study revealed that teachers with more years of experience in PYP and IB professional development had a positive perspective on curriculum management in PYP.

10. Transdisciplinary approach to teaching was found as a core element of the PYP curriculum; however, significant variations were observed in making connections across and beyond subject areas to bring out the human commonality. These variations were due to teachers' diversified disciplinary backgrounds and orientations.

11. It was observed and perceived by the teachers that in the name of transdisciplinary approach, an interdisciplinary approach was predominantly found. Transdisciplinary learning in terms of transcending the subject boundaries to bring out human commonalities needs more focus and there is a scope for improvement.

12. It was found from the study that the holistic development of students in PYP was through integrating Learner Profile and Personal Social Physical Education (PSPE) in daily school practices.

13. The majority of the teachers perceived that the cultural context plays a vital role in nurturing Learner Profile among students. Though teachers plan and implement activities on each Learner Profile attribute; risk taker, reflective and inquirer were found to be challenging to implement.

14. It was found from the study that a host of assessment tools and techniques were used to study the learning outcome of the students. The prominent approaches for student assessment were multimodal performance assessment and peer assessment. The use of portfolios, rubrics, role plays, reflective journals, and anecdotal records were prominent.

15. was found from the study that the majority of the students in the sample schools perceived that the pedagogical process was engaging, enjoying, and empowering because of the collaborative and inquiry approaches. However, diversity in students' scholastic attainments was observed.

16. The study found that there was a systematic program evaluation done both by IB and the school itself at specific time intervals to monitor the quality outcomes of PYP.

17. It was found from the study that a decentralized management approach through distributed leadership models was adopted for managing academic and administrative tasks in the schools in which principals and PYP coordinators play leadership roles at different levels. Moreover, teacher leadership was perceived as an important factor in the pedagogic leadership of the school.

18. The study also revealed that the priorities of the school administration in terms of economic viability, student enrolment, and sustainability, the focus was more on marketing and public relations than creating opportunities for teacher development.

19. The study identified the following major challenges for the effective implementation of the PYP curriculum in schools.
    - High teacher attrition
    - Professional training and development
    - Teacher experience
    - Academic planning
    - Parental awareness of PYP and involvement in student's learning
20. It was found that there is a great degree of flexibility and autonomy in the development and implementation process of the PYP curriculum; the pedagogical leadership was found to be most significant in making the PYP curriculum effective. The study revealed that institutional accountability and conviction is the key to translating the IB PYP framework into effective educational practices in schools.

6.17 IMPLICATIONS OF THE STUDY

The study investigated curriculum development, implementation, evaluation and pedagogical leadership in IB PYP schools to understand how the schools adopted the PYP curriculum in the Indian context. The study brought to light various processes, practices and conditions related to curriculum and pedagogy that supported PYP implementation. Finally, curricular and leadership models were also evolved based on the empirical findings. This study has significant implications for school leaders, IBO, teachers, teacher education and, in general, educational practitioners.

The study highlighted the importance and the influence of the socio-cultural-political context in which the curriculum was implemented. The curriculum development and implementation are not neutral but value-laden and are shaped from the same context in which it is developed and implemented. This is particularly important to consider when an international curriculum originated in the western context is being adopted in the non-western context. The findings were indicative of influences from the national education system and curriculum on the curriculum developed in the schools adopting an international curriculum like the PYP. The school leaders adopting an international curriculum need to be cognizant of the educational policies and demands from the local/national education system and strategize the assimilation of IB programs. The study also suggested that the IB need to provide additional support to the schools in contextualizing the IB programs nationally.

It was evident from the findings that the schools need substantial resources in terms of both material and human resources to implement PYP. The resources need to be made available,

accessible and utilized by all the stakeholders efficiently. It was found that the schools had well-defined processes and procedures to mobilize and utilize resources to support PYP implementation. This finding also indicates that for any school to implement integrated-inquiry-based learning, the resources are vital, without which these progressive educational approaches cannot take off. Policymakers and educational planners need to understand the gravity of resources being available and accessible to make the best of these educational approaches.

In addition to having quality resources, the study highlighted the importance of creating conditions and processes supporting the PYP teaching-learning. It was noted that the principals played a crucial role in setting the direction and building a school culture that supported teaching-learning. It was found that the schools nurtured constant collaborations, democratic planning and decision-making, and distributed leadership among various stakeholders. Teachers as the curriculum implementers played a huge role in creating a safe and inspiring learning environment within the school and classroom. It must be noted that the schools had specific policies, protocols, procedures and processes in place to carry out all administrative and academic activities. The study illuminated the collaborative practice among various stakeholders in developing, implementing and evaluating the PYP curriculum. These findings imply that creating a supportive environment and building conducive school culture through regular routines and processes is a prerequisite to effective curriculum implementation.

As the schools are solely responsible for developing their curriculum and implementing it, curriculum management becomes a necessary process to ensure quality. This study investigated the major components of curriculum management- curriculum development, implementation and evaluation in PYP and identified several components and their relationship with each other to evolve curricular models. This model can be used to understand the curriculum management process in the PYP. Also, it can be utilized by schools that wish to adopt the PYP curriculum or schools that wish to adopt an integrated inquiry-based curriculum. These models are school-based curriculum models where the stakeholders need to take autonomy and agency in developing the school curriculum. The IB need to provide additional support in terms of guiding various model for a school-based curriculum that helps the schools to contextualize the PYP curriculum in their local and national context.

Since leadership plays a key role in effective curriculum management, this study examined how leadership practices are shaped, what approaches are adopted, and the key focus of

leadership in PYP. The leadership in PYP was exercised to enhance the pedagogy; hence pedagogical leadership was prominent in PYP. The main focus of pedagogical leadership was to develop students, professional development of teachers, build a positive relationship between and within stakeholders, and foster school partnerships and community engagements. The leadership was found to be distributed in the schools at various levels, and teachers were observed taking leadership in terms of leading other teachers and providing mentorship. This model of leadership seemed to have a positive impact on the entire school community. School leaders who generally focus on academic and administrative leadership need to consider pedagogical leadership as it gives primacy to learners and learning where focused and concerted efforts are put towards improving how students learn within a school system.

Like many other studies, this study has highlighted teachers' role in effective teaching and learning. The study investigated the role of teachers in each aspect of curriculum management and identified pertinent attributes, attitudes, roles and competencies needed to succeed in PYP. This has vast implications for teachers and teacher education institutions. Teachers are often viewed as curriculum implementers but not designers, and this study highlighted the need and importance of teachers having the knowledge and skills for curriculum development. Teachers in traditional systems are viewed as knowledge providers; in the learner-centric approach, they need to assume the roles of facilitators who help students co-create knowledge. In addition, teachers need to have the competency for integrated teaching-learning. In PYP, teachers not only need to be competent in the subject but also need to demonstrate the Learner Profile attributes. Several findings on teachers' role in PYP reassured that there is a real need for a paradigm shift in teacher education programs in India. Moreover, pre-service teachers rarely get exposure in international schools, let alone international exposure. In light of this study, the teacher education programs need to be reimagined and restructured to cater to the progressive educational approaches, methods and diverse schools.

Finally, the study identified several challenges faced by school leaders and teachers and challenges posed by external and internal factors that impacted the effectiveness of curriculum management in PYP. These findings help the school leaders, IBO and other educational practitioners address the issues and mitigate the challenges through strategic interventions.

6.18 RECOMMENDATIONS

The PYP model for primary education is a relatively new approach in India and is gaining popularity due to its perceived curriculum rigour and impact on students learning. The study investigated the curriculum management process and identified several interrelated components, enabling factors and challenges in effectively implementing PYP in the Indian context. There are several recommendations based on the study's findings to the schools adopting the IB PYP curriculum, to IB Organization and for future research.

Recommendations for the schools

Selection and retention of teachers: Teachers play a vital role in translating the PYP curriculum into effective practice. The school needs to develop educator recruitment criteria to identify teachers and PYP coordinators who align with the philosophy of international mindedness and inquiry and be adaptable to integrated inquiry-based teaching. Practitioners attuned to traditional systems where teaching to test is the prominent aspect of the classroom may find adapting to the IB PYP approaches challenging. This does not imply that teachers from traditional systems cannot embrace the IB approaches; however, if the schools have a vast majority of teachers aligned to traditional methods of teaching, this impacts the degree to which PYP practices permeate the school and classrooms.

Many teachers noted the importance of teacher retention to sustain the PYP practices in the school. Each school is unique in terms of its socio-cultural and organizational context. The findings indicated that teachers require a minimum of three years to understand PYP and practice effectively in a particular school context. Due to the lack of experienced IB/ qualified teachers in India, poaching is not uncommon. The schools need to develop a reliable mechanism to retain the teachers, coordinators and principals to develop institutional history and consolidate the implementation of the PYP curriculum.

Professional development of teachers, coordinators and principals: Professional development was identified as one of the main activities of the IB PYP schools; however, teachers noted that the new teachers need more professional development. The school needs to identify the teachers' needs and provide training in those areas along with other general IB workshops. It was noted that the IB workshops come with a high cost, and many schools can not afford to support all their teachers; the schools need to ensure quality workshops are provided to all teachers.

The study revealed that the development and implementation of the PYP curriculum depend on the competency and scholarship of the pedagogical leadership team in designing an integrated curriculum. Most teachers are not trained in curriculum development, especially the integrated curriculum. Teachers noted that the school focuses on the mere development of POI and does not understand the foundations of integrated curriculum development. Thus, the schools need to provide training for curriculum design for teachers, coordinators and principals.

Preparing pedagogic leaders: The schools must adopt a distributed pedagogical leadership approach to implement PYP successfully. All the key actors- principals, coordinators and teachers need to be equipped with skills for curriculum development, take on leadership roles and collaborate effectively within and outside of school. It was found that the distribution of leadership is predominantly perceived as sharing roles and responsibilities but not sharing decision-making power. For the stakeholders, particularly teachers, to demonstrate leadership, they need to be empowered within the school system to take decisions about curriculum and pedagogy within the school and classroom. The principals need to acknowledge the differences and potential within the school and leverage the competencies of teachers and other stakeholders.

Utilization of curricular models: The IB provides a broad curriculum framework within which the schools need to develop their school-based curriculum. It is seen from this study and previous research that the schools do not use relevant curricular models to develop and implement PYP; instead, they focus only on the development of POI. The use of curricular models like the one developed in the study help schools guide and structure leadership, practices and resources to achieve curriculum coherence.

School partnerships: The IB was built on the strength of collaborations of educators, thus the schools are encouraged to build partnerships at various levels to enhance the impact of education on students learning. In India, private schools' competitive approaches concerning sharing knowledge compromise the strength of collaborations. There is a need for capacity building of these schools through a partnership with other IB schools at the regional and national levels. The schools need to promote sharing of experiences amongst PYP schools regularly.

The school also need to build partnerships with teacher education institutions. Through this, the awareness of IB education is spread among pre-service teachers and provides teaching

experiences for teacher trainees. Also, the teacher education institutions can be used as research and professional development centre for prospective and in-service IB teachers.

It was observed that the teachers in PYP have limited international exposure, the PYP schools that aim for international education through intercultural understanding should build partnerships and programs for international teacher exchanges. This will have a direct impact on the curriculum and pedagogy.

Prioritizing teaching-learning: In India's highly competitive international school market, schools should focus on teaching-learning. Teachers in the study noted that the schools, to achieve distinctiveness in the market, aim to conduct many programs and activities that take time and focus away from core teaching-learning. There is a real need for international schools to reprioritize their activities for capacity building of the school and teachers.

Recommendations for IBO

Acknowledge the diversity of schools: It was found from the study that the IB PYP schools are similar in many ways yet diverse. The IB needs to acknowledge the differences across the PYP schools in India and best support them through customized services and programs. It is recommended that IB provides a standard curriculum model for practical curriculum development along with the existing framework and specify how the PYP concepts like transdisciplinarity, international mindedness, Learner agency etc., be interpreted within the unique socio-cultural-political contexts of the schools.

Acknowledge the impact of stakeholders' socio-cultural-educational background on PYP practices: Several studies highlighted the curricular and pedagogical challenges associated with implementing IB programs in non-western contexts. Even this study identified teachers' and parents' socio-cultural- educational backgrounds influencing the PYP practices. Recognizing the perennial tensions in shifting from long existed traditional instruction to progressive pedagogy, the IB needs to provide clarity and guidance about how the meaning and significance of PYP components can be locally interpreted and implemented without compromising the core aims.

Need-based professional development: Considering the growth of IB schools in developing countries and the financial constraints of the IB schools, the IB need to provide concession on IB workshops so that most of the teachers can avail the of professional development. Many teachers in the study pointed out that IB workshops are generic and suggested a need-based professional development program that can directly impact their classroom practices. In

addition, IB should provide additional support in the form of academic publications, guidelines, and teacher workshops around transdisciplinary curriculum, international mindedness and Learner Profile implementation within the national context.

Recommendations for future research

- The growth of international schools in India is indicative of educational globalization. There are several international school programs adopted in India apart from IB programs. A comparative study of international education programs at the school level offered by various international organizations would illuminate the strategies and processes for adopting international school programs in a national context. A study of this kind would have significant implications for educational policies.

- The IB programs are getting popular in many developing countries. Cross-national comparative studies on various aspects of school management, curriculum and pedagogy will help school leaders, policymakers and IB to understand the impact, prospects and challenges of implementing international education in developing countries.

- The growth of international schools, mainly IB schools, is due to the demand from parents from high socio-economic groups. In the background of the increasing privatization of school education focused on parental choice, a study on parental motivation and expectations from IB schools in India needs to be conducted.

- Pedagogical leadership is gaining impetus in school administration and leadership. A large-scale survey of principals in international schools at a national level is needed to understand how leadership is shaped in international schools and the challenges of school leaders in implementing international curricula in the Indian context.

- In India, no government agencies regulate international schools; in addition, the area of international schools is understudied. Hence, several areas related to international education and international schools warrant further consideration. A study on government regulations and policies on international education in countries like China, Singapore, and Indonesia would provide directions and insights on regulations and quality control of international schools within a national context.

- In light of the increase in IB schools and the low availability of teachers in India and other developing countries, a large-scale survey on teacher demand and supply of IB teachers needs to be conducted. As a part of this study, it would be essential to analyze

the government policies on hiring expatriate teachers/ employees and their impact on teacher recruitment.

- The teacher selection and development process is one of the indicators of a quality education system. A study on teacher selection and professional development in IB schools need to be conducted to understand teachers' competencies and training needs to perform well in the IB system.

- School partnerships with the community, teacher education institutions, other IB schools, national boards and international organizations are essential for providing quality IB education. A series of exploratory studies must be conducted to investigate such partnerships' feasibility, processes and impact.

- A longitudinal study on the integrated and transdisciplinary curriculum's impact on student learning needs to be conducted to understand how students perceive and imbibe international-mindedness within the national context.

6.19 CONCLUSION

The present study is a detailed analysis of curriculum management in IB PYP schools in India. The study illuminated the processes, strategies, procedures and factors that facilitated the contextualization of the PYP curriculum. The findings indicate that the schools had flexibility and autonomy in developing and implementing the curriculum within the PYP framework. In developing and implementing the school-based curriculum, the principals, PYP coordinators and teachers collaborated to achieve curriculum coherence and relevance. It was found that the schools mapped the national curriculum with the PYP to aid the transition from IB to the national board, catering to parental demands and expectations. The findings indicate that the schools have contextualized the PYP curriculum to the local and national context by mapping the curriculum to the national curriculum. However, it is imperative to note that intercultural educations and global perspectives in the curriculum need more focus. To strengthen further in the Indian context, IB PYP needs to accommodate the principles and approaches categorically recommended by NEP 2020 from preparatory to foundational and further progression in the educational ladder. The integration of the Indian knowledge system as envisaged by NEP 2020 could be the point of interface for mapping the IB curriculum with the national curriculum.

It was found that the teachers played a significant role in translating the PYP curriculum into effective pedagogical processes. Most teachers had the knowledge and a positive attitude towards the PYP curriculum. It was observed that the teachers interpreted the PYP features-transdisciplinary curriculum, international mindedness and Learner Profile based on their

socio-cultural and educational backgrounds. Hence there was diversity in the practices across the classrooms. The study highlighted the influence of teachers' socio-cultural and educational backgrounds on their beliefs and teaching-learning practices. It suggested that schools should provide adequate training to align the teachers' beliefs and practices to the IB PYP teaching-learning. In general, the study emphasized the influence of external factors like parents, community and IB and internal factors like teachers and principals on curriculum management.

Although there were variations in context, processes, and strategies used by the PYP school for curriculum management, the researcher was able to identify similar processes, factors and patterns within the components of curriculum management - curriculum development, implementation, evaluation and pedagogical leadership. Based on the empirical data on each component of curriculum management, curriculum and leadership models have evolved that show relevant components and their interrelationship with others. It is to be noted that the widespread adoption of PYP or any other educational program with similar educational philosophies and approaches will depend on the availability of quality resources- financial, material and human resources and the commitment of school leaders to create supportive culture. The models developed in this study will facilitate school leaders and practitioners to adopt PYP effectively in a given context.

IB PYP programs have been a potential program and gained parental choice for primary education. Several of the components recommended by IB PYP were adopted and implemented by many national curriculum boards in India, which indicates the accessibility of the pedagogical framework and approaches in India. Even the Government of Delhi has planned to implement the IB curriculum in public schools. The study evidenced that IB as a global education product is succeeded in adapting to national systems, especially in those countries attuned to neoliberal educational policies. In the globalized world, the vision of India to become global knowledge power (Vishvaguru), the education system needs to accommodate international curricula within the national education system with greater provisions of access, equity, quality, affordability, flexibility and accountability.