Effective teaching practices and teacher efficacy beliefs of International Baccalaureate Middle Years Programme teachers

Gregory C. Hutchings Jr.

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EFFECTIVE TEACHING PRACTICES AND TEACHER EFFICACY BELIEFS OF INTERNATIONAL BACCALAUREATE MIDDLE YEARS PROGRAMME TEACHERS

A Dissertation

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The Faculty of the School of Education

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In Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

By

Gregory C. Hutchings, Jr.

April 2010
EFFECTIVE TEACHING PRACTICES AND TEACHER EFFICACY BELIEFS OF INTERNATIONAL BACCALAUREATE MIDDLE YEARS PROGRAMME TEACHERS

by

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Approved April 2010 by

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This study compared the teaching practices and efficacy beliefs of traditional middle school teachers and International Baccalaureate Middle Years Programme (IBMYP) teachers in an urban school district using the framework of Stronge’s Model of Effective Teaching (2007), Stronge and Tucker’s (2003) Teacher Effectiveness Behavior Scale, and Tschannen-Moran & Hoy’s (2001) Teacher’s Sense of Efficacy Scale. Recommended practices for effective teaching were extracted from the following four categories of Stronge’s (2007) Model of Teacher Effectiveness: classroom management and organization, implementing instruction, monitoring student progress, and construct of teacher’s sense of efficacy.

A stratified random sample of teachers was selected from four middle schools in a large urban district. There were approximately 10 teachers selected from each school which gave a total of 40 teachers who participated in the study. There were 20 (n=20) IBMYP teachers and 20 (n=20) traditional middle school teachers who agreed to participate. A total of 18 IBMYP and 16 traditional teachers completed the online TSES questionnaire.

There was a significant difference (p<.05) in instructional differentiation, assessment for understanding, classroom management and encouragement of responsibility for International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers. However, there was not a significant
difference (p<.05) in efficacy for student engagement, efficacy for instructional practices, efficacy for classroom management, instructional focus on learning, instructional clarity, instructional complexity, expectations for student learning, use of technology, quality of verbal feedback to students, classroom organization, caring, fairness and respect, and enthusiasm for International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers.
EFFECTIVE TEACHING PRACTICES AND TEACHER EFFICACY BELIEFS OF INTERNATIONAL BACCALAUREATE MIDDLE YEARS PROGRAMME TEACHERS
Chapter 1 – The Problem

International Baccalaureate Programmes as Educational Reform

International Baccalaureate (IB) programmes are providing students an opportunity to contribute to our world through their academic studies and teachers are responsible for providing a platform for this non-traditional way of thinking. According to Kagan and Stewart (2004), the United States is lacking concern of global education and importance of providing this education to students in public schools. U.S. schools lack the knowledge of world issues, provide inadequate teacher education requirements, minimal course work on internationalism, and minimal language instruction that incorporates languages from around the world (Sanders & Stewart, 2004).

In 1994, the International Baccalaureate Organization developed a curriculum called the Middle Years Programme for students in grades sixth through tenth that would increase international mindedness and provide students with the skills, knowledge and attitudes needed to be productive in a global society (IBO, 2009). The MYP consists of three basic concepts: intercultural awareness, holistic education, and communication with a requirement of sustained and continuous instruction in a modern world language (IBO, 2009). The Middle Years Programme will be discussed and examined in chapter II of this study.

There are more than 755,000 students enrolled in one of the three International Baccalaureate (IB) Programmes in 138 countries around the world: Primary Years Programme (PYP), Middle Years Programme (MYP) and Diploma Programme (DP) (IBO, 2009). Over the past ten years, the number of schools across the world that
implement IB programmes has grown from 10% to 20% each year. From 2008 to 2009, IB schools worldwide have increased by 12.63% going from 2,954 schools in 2008 to 3,327 schools in 2009 (IBO, 2009). Specifically, there has been a 22.22% increase in PYP schools from 2008 to 2009, an 8.22% increase in MYP schools from 2008 to 2009, and an 11.75% increase in DP schools from 2008 to 2009 (IBO, 2009). The first IB World School in the United States was authorized in 1971. Since 1971 there have been 1,037 IB World schools who offer one or more of the three IB programmes including 179 schools offering the Primary Years Programme (PYP), 317 schools offering the Middle Years Programme (MYP), and 669 schools offering the Diploma Programme (DP) (IBO, 2009).

The federal government has tied federal funds to No Child Left Behind (2002) benchmarks which have caused many schools to encounter extreme consequences for not making adequate yearly progress (AYP) and forced school districts to explore non-traditional academic programs to meet the needs of their students. The International Baccalaureate Organization is a non-traditional program that provides a holistic curriculum that increases rigor and focuses on the whole child. Many schools across the country are using International Baccalaureate Programmes to provide a more rigorous academic curriculum for all learners and increase academic achievement. However, federal funds are continuing to decrease and many districts are faced with eliminating academic programs such as IB programmes.
International Baccalaureate Programmes and Effective Teaching

The International Baccalaureate Organization continues to receive recognition for its program goals and ability to meet the needs of students (Nugent & Karnes, 2002; Poelzer & Feldhusen, 1997; Tookey, 2000). There is limited research on the qualities of effective teaching and International Baccalaureate programmes. The IB curricula are interdisciplinary with a holistic and interrelated approach to learning that has an emphasis on global community (Lateer, 1999). The IBO programmes are academic programs that use international standards for measuring teaching and learning, as well as, provide educators with a global professional network to learn effective teaching and learning practices (IBO, 2009).

Due to the No Child Left Behind Act (2002), IB teachers in public schools are required to fulfill state objectives for state mandated testing and IB curricular/program goals. Since there has been limited research on IB programmes and effective teaching, there are still questions that need to be addressed. What is the evidence that recommended practices of effective teaching and learning are implemented by IB Middle Years Programme teachers? Do IBMYP teachers possess instructional skills that challenge metacognitive development of IBMYP students? Do IBMYP teachers utilize monitoring strategies that empower students to meet their fullest potential? Are the teacher self-efficacy beliefs in IBMYP teachers related to levels of student achievement? This study will provide research findings that will support or disprove the effectiveness of IBMYP teachers in an urban school district that is faced with eliminating non-traditional academic programs due to budget cuts.
Reform and Teacher Effectiveness

Many research studies have identified the qualities of effective teaching. There are two main dimensions of effective teaching: intellectual excitement and interpersonal concern/effective motivation (Lowman, 1996). According to Ebro (1977), Effective teachers are well organized, versatile with delivery of instruction and use a variety of instructional strategies and humorous (Ebro, 1977). Furthermore, effective teachers focus on the content and instructional objectives, as well as, provide good classroom management and interact with students by providing immediate feedback (Ebro, 1977). Effective teachers encourage contact between the student and teacher to develop reciprocity and cooperation among students (Chickering and Gamson, 1991). An effective classroom reinforces student comments by nonverbal behavior and students are praised when needed to establish a climate that is warm and welcoming (Ebro, 1977).

Carnegie Corporation's Task Force on Learning (1996) identified the power of teaching to effect change in student achievement. A teacher's knowledge of subject matter, student learning and development, teaching methods, and classroom management are all factors of effective teaching (The National Commission on Teaching and America's Future, 1996). Teachers have a huge effect on student achievement and their teaching ability is a major contributor to the outcome of their students' learning. A strong sense of identity and a deep understanding of adolescent development are integral components of effective teaching (Knowles and Brown, 2000). In a study conducted by Sanders and Horn (1994), student achievement for students with "most effective" teachers and "least effective" teachers had a 39 percentage point difference. A research
study conducted by Gordon, Kane, and Staiger (2006) showed teachers in the top quartile of effectiveness generate students that advance five percentile points each year compared to their peers, whereas, teachers in the bottom quartile of effectiveness generate students that lose five percentile points each year compared to their peers.

*Student Achievement and Effective Teaching*

According to Stronge and Tucker (2003), teachers are the most important factor in schools. In order to have dramatic improvements in all students’ preparation for college and careers, states will need to implement well thought human capital strategies that put the right teachers in the right schools teaching the right subject matter (Achieve Incorporated, 2009). Stronge (2007) highlighted the following commonalities of effective teachers: strong classroom management, good delivery of instruction, and consistently monitors student progress. Many research findings focus on the effect teaching has on student achievement in schools across the country. Effective teachers need pedagogical content knowledge rather than only knowledge of a particular subject matter (Shulman, 1987).

The framework used in this study focused on the following four of six categories for effective teaching developed by Stronge (2007): teacher as a person, classroom management and organization, implementing instruction, and monitoring student progress and potential. Teachers must understand that student achievement is related to both intrinsic and extrinsic factors of schooling (Krovetz & Arriaza, 2006). According to Sanders (2000), “differences in teacher effectiveness is the single largest factor affecting academic growth of populations of students” (p.8). Teachers who strongly believe that
they can motivate students spend less time on discipline and more time on instructional practices (Onafowora, 2004). The most effective way for students to learn is to have them actively involved in the learning process, engaged and motivated to learn, and build on their existing knowledge and understanding (National Research Council, 2000).

Theoretical Rationale

The theoretical rationale for this study is the theory of teaching and learning. The theory of learning is the core of effective teaching. A program such as the International Baccalaureate's Middle Years Programme will provide teachers an opportunity to incorporate the teaching and learning theory in the program design and effectively serve their student population (Bransford, Brown, & Cocking, 2000; Gollub, Bertenthal, Labov, & Curtis, 2002). The book, *Qualities of Effective Teachers*, by James H. Stronge (2007) chronicles the background of effective teaching and characterizes commonalities of an effective teacher and the following four categories were used as the theoretical framework for this study:

- The Teacher as a Person
- Classroom Management and Organization
- Implementing Instruction
- Monitoring Student Progress and Potential

*Effective Teaching Theory*

Cruickshank, Jenkins, & Metcalf (2003) stated, “most people would agree that good teachers are caring, supportive, concerned about the welfare of students, knowledgeable about their subject matter, able to get along with parents…and genuinely
excited about the work that they do...Effective teachers are able to help students learn (p.329). Wayne & Youngs (2003) concluded that, “students learn more from teachers with certain characteristics...teachers differ greatly in their effectiveness, but teachers with and without different qualifications differ only a little” (p.100-101). Effective teaching cannot occur if individual differences of students are not considered during instruction. The concept of differentiated instruction, in which the learner’s strengths determine how instruction will be delivered, is a cornerstone of the teaching theory as well (Kapusnick & Hauslein, 2001).

According to Cruickshank & Haefele (2001), good teachers are identified as experts, analytical, ideal, dutiful, competent, satisfying, reflective, diversity-responsive, and well respected. A teacher’s verbal ability, educational coursework, teacher certification, content knowledge, and teaching experience have an impact on teacher effectiveness (Stronge, 2007). Teachers must be caring, fair, respectful, as well as, promote enthusiasm and motivate learning (Stronge, 2007). Additionally, IBMYP teachers must possess these qualities and the IBO has created a learner profile that teachers are required to incorporate in their lessons. The IB Learner profile attributes will be discussed in the literature review of this study. According to a study conducted by Pressley, Wharton-McDonald, Allington, Block, & Morrow (1998), the following characteristics are likely to be present in the most effective teacher: high academic engagement; excellent classroom management; encouragement of student self-regulation; a positive, reinforcing, cooperative environment; explicit teaching of skills; an emphasis
on literature; much reading and writing; scaffolding; and strong connections across the

curriculum.

*Teacher Self-Efficacy Theory*

According to Bandura (1997), self-efficacy is “one’s capability to organize and
execute the courses of action required to produce given attainments”. Self-efficacy has
an effect on behavior by impacting goals, outcome expectations, affective states, and
perceptions of socio-structural impediments and opportunities (Bandura, 1997).

Tschannen-Moran and Woolfolk Hoy (2001) used the general formulation of self­
efficacy to define teacher-efficacy as “a teacher’s judgment of his/her capabilities to
bring about desired outcomes of student engagement and learning, even among those
students who may be difficult or unmotivated.” Teachers who believe that they will be
successful with educating students will achieve this task due to their strong desire to be
effective and ability to adapt to specific situations.

Teacher self-efficacy establishes expectations and behaviors that contribute to
student achievement (Ross, Bruce, & Hogaboam-Gray, 2006; Mascall, 2003; Muijs &
Reynolds, 2001). Teachers who are willing to go beyond the call of duty will have a
positive effect on student learning and increase academic achievement. Teachers with a
strong sense of efficacy provide environments conducive for learning that are planned
and organized yet flexible enough to meet diverse learning needs of students (Allinder,
1994). Furthermore, teachers with a strong sense of efficacy maintain high levels of
student engagement (Good & Brophy, 2003). According to Hutchinson (2004), IB
teachers had strong feelings of efficacy. The theoretical framework for this study used the

Statement of the Problem

The purpose of this study was to compare the teaching practices and efficacy beliefs of traditional middle school teachers and International Baccalaureate Middle Years Programme (IBMYP) teachers in an urban school district using the framework of Stronge’s Model of Effective Teaching (2007), Stronge and Tucker’s (2003) Teacher Effectiveness Behavior Scale, and Tschannen-Moran & Hoy’s (2001) Teacher’s Sense of Efficacy Scale. This study reviewed, analyzed, and examined data collected from teacher observations and questionnaires from IBMYP and traditional middle school teachers.

According to the International Baccalaureate Organization, their programmes are doubling its size every five years. In September 2007, there were more than 2,121 schools offering IB programmes in 126 countries. There will be at least 300 more authorized schools by the end of 2008 and almost half of these schools (1,010) are in the United States (Hill, 2008). About ninety percent of the schools in the United States with authorized IB programmes are public (Cech, 2008). IB schools pay an annual fee to retain their authorization.

The fee for the Primary Years Programme is $7,000, Middle Years Programme is $8,000, and the Diploma Programme is $9,600 annually (IBO, 2010). Funding for public school systems are being cut due to economic issues and many school districts are faced with eliminating non-traditional academic programs such as IBO programmes. This
study provided an urban school district with research findings that support the need for the Middle Years Programme, as well as, funding for the MYP in the projected district budget.

Research Questions

1. Is there a significant difference (p. <.05) in the degree to which International Baccalaureate Middle Years Programme teachers exhibit characteristics of effective classroom management and organization skills compared to traditional middle school teachers in a large urban school district?

2. Is there a significant difference (p. <.05) in the degree to which International Baccalaureate Middle Years Programme teachers exhibit effective instructional strategies in their teaching compared to traditional middle school teachers in a large urban school district?

3. Is there a significant difference (p. <.05) in the degree to which International Baccalaureate Middle Years Programme teachers effectively use assessment practices to monitor student progress compared to traditional middle school teachers in a large urban district?

4. Is there a significant difference (p. <.05) in the degree to which teachers of International Baccalaureate Middle Years Programme students exhibit selected personal dispositions in their classroom teaching in comparison with traditional middle school teachers in a large urban district?

5. Is there a significant difference (p. <.05) in the degree to which teachers of International Baccalaureate Middle Years Programme students self-report their
teacher self-efficacy beliefs in comparison with traditional middle school teachers in a large urban district?

Significance of the Study

The *No Child Left Behind Act* (2002) has identified IB programmes as an advanced academic option and currently the Tennessee Department of Education is recommending the acceptance of IB programmes at authorized schools to meet graduation requirements (Tennessee Department of Education, 2009)). In 2006, the United States Department of Education (United States Department of Education, 2006) awarded over one million dollars to the International Baccalaureate Organization (IBO) of North America to expand its authorization of Title I schools and the IBO received funds from the USDOE’s Magnet Schools Assistance Program. Therefore, it appears that the federal government supports the implementation of the International Baccalaureate’s Middle Years Programme (IBMYP) in urban schools across the country. This study provided additional knowledge about specific characteristics of IBMYP teachers as well as the potential value-added benefits of the IBMYP practices in an urban school district. Furthermore, this study provided research findings to support the IBMYP for an urban school district faced with economic issues.

There has been limited research conducted on the IBMYP. Knowledge gained from this study contributed to the International Baccalaureate Organization that developed the Middle Years Programme by identifying behaviors of IBMYP teachers and comparing those behaviors to traditional middle school teachers. Additionally, the knowledge gained explored different practices of teachers who implement the MYP in
comparison to traditional middle school teachers. This study explored IBMYP and traditional middle school teachers' sense of efficacy levels using the TSES.

Definition of Related Terms

The following section provides conceptual definitions of selected terms deemed important for understanding the research questions and the context of the study.

*Effective teaching.* Stronge (2007) describes this concept in the following four statements also known as the “Four Cs”:

- The effective teacher *cares* deeply.
- The effective teacher recognizes *complexity*.
- The effective teacher *communicates* clearly.
- The effective teacher serves *conscientiously*.

Stronge (2007) defines this concept by summarizing and organizing researched material in the following six categories: Prerequisites of effective teaching; The teacher as a person; Classroom management and organization; Planning and organizing for instruction; Implementing instruction; Monitoring student progress and potential. Four of the six categories were examined and specific characteristics were studied for their relevance as effectiveness factors for IBMYP and traditional middle school teachers.

*Classroom Management and Organization.* This term refers to practices and procedures that allow students to learn material taught by teachers (Wong, 1999).

*Differentiated instruction.* This term refers to a teacher who proactively, plans varied approaches to what students need to learn, how they learn and/or how they can
express what they have learned in order to increase the likelihood that each student will learn as much as he or she can as efficiently as possible (Tomlinson, 2003, p. 151).

*International Baccalaureate Middle Years Programme.* This program provides a framework of academic challenge that encourages students aged 11-16 to embrace and understand the connections between traditional subjects and the real world, and become critical and reflective thinkers (IBO, 2009). Eight subject groups integrated through five areas of interaction provide a framework for learning within and across the subjects.

*Questioning.* This term refers to an interactive process used by teachers to monitor student understanding/knowledge, as well as, increase higher order thinking skills (Feldhusen, VanTassel-Baska, & Seeley, 1989).

*Learning Theory.* The learning theory is defined as the following seven principles: Principled conceptual knowledge, prior knowledge, metacognition, differences among learners, motivation, situated learning, and learning communities. Learning is supported through socially support interactions (Gollub, Bertenthal, Labov, & Curtis, 2002, p.119).

*Metacognition.* This term refers to knowledge of strategies that may be used for diverse tasks, conditions under which these strategies might be used, extent to which strategies are effective, and self (Flavell, 1979; Pintrich, Wolters, & Baxter, 2000; Schneider & Pressley, 1997).

*Monitoring Student Progress.* This term refers to an assessment used to determine a student’s understanding, as well as, the quality of feedback to students verbally.
**Recommended Practices.** This term refers to research-based teaching strategies, program design, and teaching methodologies that increase student achievement and performance.

**Teacher self-efficacy.** This term refers to a “teacher’s judgment of his/her capabilities to bring about desired outcomes of student engagement and learning” (Tschannen-Moran & Hoy, 2001, p.783) for all learners in their classroom. Tschannen-Moran, Hoy, and Hoy (1998) developed a model that is defined by the two interrelated dimensions of analysis of teaching task and context and self-perception of teaching competence.

**Limitations and Delimitations of the Study**

The following limitations are applicable to this study.

1. The structure of the International Baccalaureate Middle Years Programme differs by country, school system, and/or community which may limit generalizability of this study of the MYP to those studied in the state of Tennessee.

2. The generalizability of this study may be limited to International Baccalaureate Middle Years Programmes that complete years four and five in the feeder high school rather than completing the years one to five in the same building and traditional middle school programs that include grades 5-8.

3. The assessment of teachers’ sense of efficacy is based on a self report conducted by IBMYP and traditional middle school teachers and may not reflect the actual level of teacher-efficacy beliefs.
4. The researcher has been trained by the International Baccalaureate Organization and serves as the Head of School for an IBMYP school.

5. The teacher data will not be aggregated by demographic characteristics and teachers may have different levels of teaching experience and credentials.

Assumptions

The major assumptions in this study are listed below:

1. Teachers are responsible for student learning and teaching practices.

2. Effective instruction relies on teacher-efficacy.

3. International Baccalaureate Middle Years Programme teachers in this study have received training from the International Baccalaureate Organization.

4. International Baccalaureate Middle Years Programme and traditional middle school teachers are highly qualified in the area of study taught.

5. Stronge’s (2007) effective teaching model is appropriate to characterize teachers in this study.

Chapter 2 – Review of the Literature

The purpose of this literature review is to investigate research material on the International Baccalaureate Organization’s Middle Years Programme, effective teaching practices, and teacher efficacy.

International Baccalaureate Organization

The International Baccalaureate Organization (IBO) was founded in Geneva, Switzerland in 1968. The program strives to develop young people who are inquiring, knowledgeable, and caring individuals that create a world of peace through intercultural understanding and respect (IBO, 2009). The IBO is a non-governmental organization affiliated to the United Nations through signatory of the UNESCO’s Peace Education plan. The plan is integrated into the IB curriculum for every subject.

Specifically, the IBO has developed the following programmes to encourage students to be compassionate, active, and lifelong learners who understand differences among other people: Primary Years Programme (PYP), Middle Years Programme (MYP), and Diploma Programme (DP). Each programme strives to produce young people who are Inquirers, Knowledgeable, Thinkers, Communicators, Principled, Open-minded, Caring, Risk-Takers, Balanced, and Reflective. These qualities are known as the IB learner profile and are the center of the IB curriculum model (IBO, 2009). This study focused on teaching practices and teacher efficacy of International Baccalaureate Organization’s Middle Years Programme teachers.
International Baccalaureate Middle Years Programme

The Middle Years Programme curriculum model (2009) is displayed in the shape of an octagon with eight academic areas or subject groups surrounding the areas of interaction. The areas of interaction are addressed logically within each of the academic disciplines. The framework is flexible enough to allow a school to include other subjects not determined by the IBO but which may be required by local authorities (IBO, 2009).

The eight subject groups include Language A, Language B, Science, Humanities, Mathematics, Arts, Physical Education, and Technology.

*Figure 1.* The middle years programme octagon curriculum model.

Language A

The subject group, Language A, is defined as the student’s best language. It is typically but not necessarily the language of instruction in the school, and is obviously fundamental to the curriculum as it crosses the boundaries of the traditional disciplines. It is the basic tool of communication in the sense of enabling one to understand and to be
understood, and to establish one's own identity. Language A is also the avenue by which one gains access to literature and thereby to the cultural treasury of civilization. The Middle Years Programme thus distinguishes between the instrumental function of language when it emphasizes listening, viewing, speaking, reading and writing skills, and the study of literature, which encompasses a variety of periods and genres. (p.7)

Language B

The subject group, Language B, is an additional modern language which similarly plays a double role. It is the means by which one communicates with another linguistic community and the gateway to the understanding of another culture. For MYP purposes, the study of a language B should represent a genuine encounter with something new to the student. It fosters communication skills and the appreciation of other cultures, increasing the students' self-knowledge and their knowledge of the world. The teaching and learning of a language B, a modern language in addition to one's own, is a compulsory aspect of the MYP in every year of the programme. (p.7)

Science

The subject group, Science, aims to provide the student with both a body of knowledge and an understanding of the scientific approach to problem solving. This dual role makes science an important means to investigate and understand the natural world. The ability to formulate hypotheses, design and carry out strategies to test them, and evaluate results, constitutes the framework within which specific content is presented. Among other skills, the student is expected to use basic laboratory equipment safely and efficiently, to measure and make sensible estimates, and to classify things logically.
Within MYP sciences are the traditional subjects of biology, chemistry and physics, as well as topics, concepts and issues from other branches of science, such as earth and health sciences.

As with other areas of the curriculum, students are encouraged to relate the content of the classroom and laboratory to the realities of life as they develop critical thinking and problem-solving skills. As well as providing a sustained, valuable academic experience, the MYP sciences subject group promotes an awareness of the increasingly international context of scientific activity, its impact and limitations, as well as the constant evolution of scientific knowledge and understanding. Students are encouraged to consider science as a constantly evolving cooperative venture between individuals and among members of the international community, influenced by its social, economical, technological, political, ethical and cultural surroundings. (p.8)

**Humanities**

The subject group, Humanities, consists of both geography and history and is intended to be taught throughout the full sequence of the Middle Years Programme. A school itself determines whether humanities are taught in distinct units, in an integrated way, or as part of an existing social studies programme. Key concepts contained within the subjects are intended to provide the foundation for further study in many fields. The programme is presented as a conceptual framework within which teachers are free to select and design individual courses that are adapted to available resources, local requirements and the specific needs of students. The study of geography is intended to
lead students from an understanding of the immediate environment to an appreciation of spatial phenomena at regional, national and global levels.

Through the use of a body of major geographical concepts relating to orientation, geographical position, spatial representation, development, and environment, the student acquires the ability to analyze, classify, explain and record spatial phenomena with increasing sophistication at each level. The study of history in the MYP demands a truly international approach. It addresses a variety of cultures and times, and stresses their increasing interaction in our modern world. History within an international curriculum stresses the ability to analyze evidence, to use historical sources in a critical way, to detect bias, and to argue empathetically. Beyond factual knowledge, students are encouraged to develop the capacity to think and write historically and to enjoy and value the past for its own sake as well as a means by which to understand and appreciate the present. (p.8)

Mathematics

The subject group, Mathematics, sets out to give students an appreciation of the usefulness, power and beauty of the subject. One aspect of this is the awareness that mathematics is a universal language with diverse applications. MYP mathematics promotes an understanding of how cultural, societal and historical influences from a variety of cultures have shaped mathematical thought. Students learn to understand and discuss the international nature of mathematics. Schools are required to develop schemes of work according to a framework that includes five branches of mathematics: number, algebra, geometry and trigonometry, statistics and probability, and discrete mathematics.
Aims and objectives include understanding mathematical reasoning and processes, the ability to apply mathematics and to evaluate the significance of the results, the ability to develop flexible strategies for problems in which solutions are not obvious, and the acquisition of mathematical intuition. (p.8)

*The Arts*

The subject group, the Arts, encompasses visual arts and performing arts and is of particular interest in an international programme. From the earliest times, artistic expression has been common to all cultures as human beings make statements through a variety of non-verbal forms and create objects which are aesthetically pleasing. Beyond the barrier of languages, the discovery of the cultural values of civilizations through their artistic production is one of the best ways to promote international understanding. The coursework brings students into contact with the art forms and aesthetic values of other cultures as well as their own, and helps to develop perceptions between ideas and art.

Students are encouraged to identify particular creative abilities and to master techniques appropriate to that form of expression. In addition to developing the student’s own imagination and skills, the programme seeks to acquaint young people with the creations of men and women whose works have proven to be of enduring worth. MYP arts is designed to help the student become a developing artist, one who is able to assess the level of skill and target the areas that need development. It organizes learning around the creative cycle, a dynamic, ongoing process of sensing, planning, creating and evaluating art, and one in which all the senses are involved. This cycle involves creative energy, communication, interaction and reflection.(p.9)
Physical education

The subject group, Physical Education, has a unique and significant contribution to make, since its aim is to facilitate physical, intellectual, emotional and social development. The Middle Years Programme intends to cultivate a healthy and active lifestyle for students and consequently advocates activities which are not only enjoyable but also contribute to healthy living. Students are helped to develop the motor skills necessary to enable them to participate successfully in a variety of physical activities, and learn the benefits of a regular exercise regime. MYP physical education enables students to establish links between different areas of experience. It is also a useful area in which to incorporate intercultural awareness, as physical education is a reflection of elements of history, culture and values. The course requires schools to allow students to experience and appreciate a wide range of physical activities in and outside the school. MYP physical education also provides opportunities for different forms of self-reflection, communication and teamwork. (p.9)

Technology

The subject group, Technology, in the MYP aims at establishing the foundations for technological literacy and know-how. Students become aware of the practical solutions people have devised to satisfy their basic need for food, clothing and shelter as well as to communicate, to preserve their health, to learn, and to enjoy themselves. Technology in the MYP is essentially concerned with solving problems in an effort to stimulate students’ ingenuity and to encourage them to combine intellectual talents and practical skills. While allowing schools great flexibility in the choice of subjects, the
teaching of technology in the MYP provides a balance among three key areas: systems, information and materials.

All technology courses chosen by schools should allow students to display ingenuity and creativity. Also, devise practical solutions to given tasks by following the design cycle of investigation, planning, creation and evaluation. This subject area offers great potential for reinforcing and integrating skills learned in other disciplines, especially in the presentation and handling of data and the processes involved in the design and manufacture of a product. At the same time, it fosters awareness of the social and ethical implications of technological development. (p.9)

The IBMYP (2009) focuses on the following three concepts that support and enhance all areas of the IBMYP curriculum: Intercultural awareness; Holistic Learning; and Communication. According to Gross (2003, p.B1), “the IB curriculum...helps students think critically, synthesize knowledge, reflect on their own thought processes and get their feet wet in interdisciplinary thinking.” Through intercultural awareness, students learn about cultures from around the world and develop their attitudes, knowledge, and skills about these cultures which lead to fostering tolerance and respect (IBO, 2009). A holistic learning environment will increase a student’s awareness of interdisciplinary studies and provide different approaches to human knowledge (IBO, 2009). Verbal and non-verbal communication will provide students with opportunities to communicate with the world through other languages and structural thinking opportunities to increase their own personality (IBO, 2009).
Similarly, the National Middle School Association (2010) focuses on the following four essential attributes to meet the needs of traditional middle level students: Developmentally Responsive, Challenging, Empowering, and Equitable. According to the NMSA (2010), the education of a traditional middle school student can become developmentally responsive by using the nature of young adolescents as the foundation on which all decisions are made (p.14); challenging by recognizing that every student can learn and everyone is held to high expectations (p.14); empowering by providing all student with the knowledge and skills they need to take control of their lives (p.14); and equitable by advocating for every student’s right to learn and providing challenging and relevant learning opportunities (p.14). These attributes can be achieved through sixteen characteristics that have been grouped into the following three categories: Curriculum, Instruction, & Assessment; Leadership & Organization; and Culture & Community (NMSA, 2010). Both IBMYP and NMSA philosophies focus on the whole child and preparation of middle level students for a global economy.

A significant amount of research has been conducted on traditional middle school education and suggests that students between the ages of 10-15 maximize their learning when they collaborate with their teacher. Traditional middle school students learn best when they have control over their learning (Beane, 1999; Tomlinson, 1999; Wiggins & McTighe, 2005). Furthermore, students must be able to link their new learning with prior knowledge and understanding (Bruning, Schraw, & Ronning, 1999). Traditional middle school students deserve an education that will enhance healthy growth as lifelong learners, ethical and democratic citizens, and increasingly competent, self sufficient
individuals who are optimistic about the future and prepared to succeed in our every changing world (NMSA, 2010, p. 3).

The International Baccalaureate Middle Years Programme and the National Middle School Association share common beliefs in the way adolescent students are taught. Traditional middle school students begin to experience changes in their thinking patterns about the world and how it functions (NMSA, 2010). The IB Middle Years Programme was developed to assist adolescent students with establishing a sense of belonging with the ever-changing world (IBO, 2009). Schools across the world can enhance teaching and learning by incorporating a global education curriculum (Hasan, 2000). Whether students receive a traditional middle school experience or a non-traditional program such as International Baccalaureate experience, he/she must have a teacher who delivers effective teaching practices and possesses a strong efficacy for teaching and learning.

Stronge’s Model of Effective Teaching

The book, *Qualities of Effective Teachers, 2nd Edition* (Stronge, 2007), provides research based material on teacher effectiveness in the classroom through behaviors and how it can be identified. Stronge (2007) identified the following six categories as contributors to effective teaching:

- The Prerequisites for Effective Teaching
- The Teacher as a Person
- Classroom Management and Organization
- Planning and Organizing for Instruction
This study focused on the following four categories of Stronge’s (2007) Effective Teaching Model: The Teacher as a Person, Classroom Management and Organization, Implementing Instruction, and Monitoring Student Progress and Potential. Furthermore, specific characteristics of each category was examined and used as the framework for this study. Stronge’s (2007) Effective Teaching Model is identified in Figure 2 and the research for each category examined in this study will be summarized in this literature review to support the specific characteristics identified by Stronge.

Figure 2. Stronge’s six categories of effective teaching model.

The Teacher as a Person

Teaching is one of the most rewarding careers; however, it can be classified as one the most challenging jobs in the world. These challenges can affect a teacher as a person. According to Stronge (2007), effective teachers possess the following characteristics:
- Caring
- Fairness and Respect
- Interacts with students
- Enthusiasm and Motivation
- Positive Attitude Towards Teaching
- Reflective

Affective characteristics such as a positive outlook on work, good teacher-student relationship, and love for students can contribute to a teacher’s happiness which promotes a positive classroom climate and increases a student’s academic progress (Noddings, 2005; Stronge, 2007). Effective teachers establish a caring relationship with their students (Langer, 2000). Students who experience a positive and supportive classroom environment tend to learn more from their teachers (Peart & Campbell, 1999). The love for children tends to be the core of an effective teacher’s success (Brophy & Good, 1986). IBMYP teachers must be caring and model empathy, compassion, and respect for others. Furthermore, IBMYP teachers help students have a personal commitment for service and strive to make a difference in other people’s lives (IBO, 2010).

Positive social interaction with students is a key factor for effective teaching (Stronge, 2007). Effective teachers establish a learning environment where students are able to assist with the decision making in the classroom and interact with students in a personable and friendly manner (Kohn, 1996; Brookhart & Loadman, 1992; Peart & Campbell, 1999). IBMYP classrooms provide students with a learning environment where collaboration is embraced (IBO, 2010). Students that are motivated tend to do
better academically; a teacher’s motivation for the content being taught has shown an effect on students’ motivation and academic achievement (Covino & Iwanicki, 1996; Monk & King, 1994; Rowen et al., 1997). Effective teachers are excited and enthusiastic about teaching which creates a positive learning environment and allows students to perform (Hamre & Pianta, 2005). Furthermore, all effective teachers demonstrate a strong enthusiasm for learning (Hansen & Feldhusen, 1994; Quek, 2005; Worley, 2006). IBMYP teachers provide student-centered classrooms and facilitate instruction in the classroom to allow students to take full responsibility for learning (IBO, 2010).

The more teachers care for their students the more willing they are to respect all students and embrace fairness. Respect and understanding, as well as, fairness in regards to race, gender, or nationality are demonstrated by effective teachers (Stronge, 2007). The IBO strives for students to be open-minded about other’s cultures, values, and traditions. IBMYP teachers must establish a respectful learning environment where equality is incorporated in daily practices (IBO, 2010). According to the National Association of Secondary School Principals (1997), teachers that do not embarrass or disrespect students before their peers are perceived to be more effective. In order to be an effective teacher, one must be willing to treat students with the utmost respect and provide a classroom environment that is conducive to learning. Furthermore, it is important for teachers to believe that all students can and will learn under their tutelage. Teachers that are effective in the classroom convey a positive attitude about their lives and the teaching profession (Mitchell, 1998). Effective teachers hold their students and themselves accountable for learning (Allington, 2002).
Effective teachers understand the importance of reflection which enhances teacher efficacy and has an impact on how he/she will prepare and deliver instructional practices for his/her students (Stronge, 2007). Teachers who reflect on their teaching abilities and practices tend to maintain high expectations and believe in their efficacy (National Board for Professional Teaching Standards, 2002). Teachers of IB students must assess and understand their strengths and limitations through reflection (IBO, 2010). Reflection is attained formally or informally through journal writing, mentorship, dialogue with colleagues, daily reflection log, and/or reviewing their teaching via videotape (Good & Brophy, 1997; NBPTS, 2002). Effective teachers possess a greater sense of self-efficacy and are very reflective in regards to their teaching (Heath, 1997; Thomas & Montgomery, 1998; Westberg & Archambault, 1997). Teacher efficacy was examined and will be discussed later in this chapter. Tschannen-Moran & Hoy’s (2001) Teacher’s Sense of Efficacy Scale was used in this study to identify teacher efficacy levels of International Baccalaureate Middle Years Programme and traditional middle school teachers in an urban school district.
Table 1

Key References for the Teacher as a Person

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Classroom Management and Organization

Classroom management and organization is another integral component of effective teaching. A survey conducted by Johnson (2004) identified classroom management as a major challenge for new teachers entering the education field; however, classroom management is vital for all teachers to demonstrate effective teaching (Sokal, Smith, & Mowat, 2003). According to Stronge (2007), the following components are needed to be an effective teacher:

- Classroom Management
Organization

The term management is defined by Doyle (1987) as “the actions and strategies teachers use to solve the problem of order in classrooms” (p.397). Unfortunately, a classroom that is unmanaged can have a detrimental effect on student achievement. Classroom management is instrumental in teacher effectiveness by engaging students in their learning and maximizing the utilization of time on task (Good & Brophy, 1997). Effective teachers minimize instructional disturbances (Covino & Iwanicki, 1996) by being vigilant and aware of behaviors in the classroom (Wang, Haertel, & Walberg, 1993). IBMYP teachers are responsible for providing a classroom environment where students act with integrity and honesty, as well as, take full responsibility for their actions and the consequences that accompany those actions (IBO, 2010).

The establishment of daily routines, diverse instructional practices, and monitoring student learning allows students to be engaged in the learning process (Marzano, Marzano, & Pickering, 2003). Effective teachers must exhibit high expectations for conduct in the classroom and enforce these expectations through classroom rules (Bridglall & Gordon, 2003; Fuchs, Fuchs, & Phillips, 1994; Pressley et al., 2004; Taylor, Pressley, & Pearson, 2000). Furthermore, teachers that are consistent and proactive with classroom management tend to be more effective than teachers who are inconsistent and liberal (Molnar, Smith, Zahorik, Palmer, Halbach, & Ehrle, 1999).

Organization is a major component of providing a classroom that is conducive for learning and effective teaching. A study conducted by Stronge, Tucker, & Ward (2003)
found that students make greater gains in academic achievement when their teachers are organized by establishing daily routines. Routines in the classroom make students aware of what is expected (Emmer, Evertson, & Anderson, 1980) and lesson plan management is essential to being an effective as a teacher in the classroom (Zahorik, Halbach, Ehrle, & Molnar, 2003). IB teachers use unit planners to guide and organize lesson objectives. Furthermore, IB students are expected to be risk takers and able to approach unfamiliar situations with courage and forethought (IBO, 2010). Classroom organization is integral in an IB classroom, however, it does not necessarily mean routines where students are aware of what is next is needed. Even the most organized teacher will experience students with disciplinary issues; however, it is how he/she manages and responds to student behaviors in the classroom that determines how effective they are (Stronge, 2007).

Effective teachers have strong relationships with their students which decreases disciplinary challenges in and out of the classroom (Marzano, 2003; Wolk, 2002). When disciplinary challenges arise, an effective teacher addresses the inappropriate behavior immediately (Emmer et al., 1980; Good & Brophy, 1997; Zahorik et al., 2003). Effective teachers establish specific rules during classroom discussions and/or activities (Maddux, Samples-Lachman, & Cummings, 1985). The IBMYP curriculum focuses on collaboration with peers and hands-on learning activities are embraced. IBMYP teachers must develop a good relationship with their student which in turn provides a more structured and organized classroom. Furthermore, an effective teacher establishes a
positive rapport with students where consistent and fair disciplinary consequences are implemented (Peart & Campbell, 1999; Shellard & Protheroe, 2000).

Table 2

*Key references for Classroom Management and Organization*

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<th>Key References</th>
<th>Classroom Management</th>
<th>Key Elements of Organization</th>
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Implementing Instruction

The primary role of a teacher is to implement instruction and ensure that students learn. Stronge (2007) identified the following components to implement instruction effectively:

- Instructional Strategies
- Adapting Instruction
- Content and Expectations
- Complexity
- Questioning
- Student Engagement

There are many instructional practices including direct teaching that allows teachers to be effective in the classroom (Berliner & Rosenshine, 1977; Randall & Silberg, 2003; Zahorik et al., 2003) and effective teachers use these practices to meet the diverse learning styles in their classrooms and pique student interest (Tomlinson, 2000).
However, students may not maximize their learning through lecture which is a common teaching strategy in classrooms across the country (Palmer, 1990).

According to Wenglinsky (2000), students that are taught using hands-on learning strategies scored higher than their peers on the National Assessment of Educational Progress in math and science. The pedagogy of IBMYP teachers consists of the following instructional strategies: differentiation, scaffolding, experiential learning, inquiry based instruction, cooperative learning, student-centered, and constructivism (IBO, 2010). Effective teachers must provide students with a deep understanding of the material presented rather than just the facts (National Academy of Sciences, 2004; Hamre & Pianta, 2005; Pogrow, 2005; Pressley et al., 2004; Wenglinsky, 2004). Furthermore, individualized instruction increases academic achievement (Molnar et al., 1999; Walberg, 1984; Wenglinsky, 2002). Differentiated instruction provides all students opportunities to learn; however, teachers must be sure to provide appropriate instruction for each ability group to increase academic achievement (Education Review Office, 1998; Kulik & Kulik, 1992).

An effective teacher implements diverse instructional strategies and adapts instruction to meet students’ needs; however, it is important for teachers to communicate their expectations to students effectively. The IBMYP engages students’ interest with a unit question that allows students to relate real-world issues with the curriculum objectives being taught. Communication in an effective classroom involves teacher-student, student-teacher, and student to student communication channels (Stronge, 2007). IBMYP classrooms are student-centered and teachers facilitate instruction (IBO, 2010).
In order for a teacher to communicate with his/her students effectively, he/she must possess a deep understanding of the content being taught and deliver instruction in a way that empowers students to take ownership in the material presented (Education Review Office, 1998; Rowan, Chiang, & Miller, 1997). Effective teachers must encourage student engagement and participation, as well as, ask higher order thinking questions (Ford & Trotman, 2001; Henderson, 1996; Hansen & Feldhusen, 1994; Silverman, 1995). The IBMYP curriculum framework supports higher order thinking skills as well (IBO, 2010). Students who experience classrooms with instruction is the main focus and real world experiences are used to pique their interest and provide understanding achieve at higher levels (Mason, Schroeter, Combs, & Washington, 1992; Molnar et al., 1999; Wenglinsky, 2000). The holistic approach to learning in the IBMYP provides students opportunities to connect all academic subject areas to every day learning (IBO, 2010).

Questioning and student engagement foster an effective learning environment. Research supports a relationship with student achievement and both lower/higher level questioning techniques (Berliner & Rosenshine, 1977; Taylor, Pearson, Clark, & Walpole, 1999). However, teachers achieve higher academic gains by implementing a higher level of questions during instruction (Taylor et al., 2003). Whether the questioning is lower level or higher level, the instructional objectives and goals should be the focus (Cawelti, 1999) and an in-depth analysis of material discussed should be the focus (Hansen & Feldhusen, 1994). In order to effectively implement questioning techniques, the teacher must prepare questions prior to the lesson (Covino & Iwanicki, 1996; Walsh & Sattes, 2005).
Questioning is a tool that can be used to keep students engaged in the lesson as well. An effective teacher aligns the instructional skills and objectives with the skill level of the student (Shernoff, Csikszentmihalyi, Schneider, & Shernoff, 2003), as well as, implement activities that are aligned with the instructional objectives (Cunningham & Allington, 1999; Weiss & Pasley, 2004). IBMYP teachers align MYP objectives with state and/or local objectives to effectively implement the MYP curriculum. Students must be challenged by subject matter presented and effective teacher provide support for students to be a part of all aspects of the instruction being delivered (Cruickshank & Haefele, 2001; Johnson, 1997; Pressley et al., 1998). IBMYP teachers establish questions that allow students to ask themselves why they are learning specific material and draw on content from educational cultures from around the world (IBO, 2010). All teachers must implement instruction in diverse ways to effectively meet the needs of all students.
### Table 3

*Key references for Implementing Instruction*

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Monitoring Student Progress and Potential

Teachers have a responsibility of monitoring students’ progress and potential. According to Stronge (2007), effective teachers must understand and enforce the following components:

- Homework
- Provide Meaningful Feedback
- Use Assessment Information to Meet Student Needs

One of the most important factors that enhance a student’s learning and participation is homework (Cawelti, 2004; Cotton, 2000; Coulter, 1986; Covino & Iwanicki, 1996). Effective teachers understand the amount of homework is not as important as the quality of the work given (Senge, Cambron-McCabe, Lucus, Smith, Dutton, & Kleiner, 2000). Students must have a clear understanding of the content related to the homework assigned (Danielson, 2002; Marzano, Pickering, & Pollock, 2001) and teachers must provide a grade (Cawelti, 2004) in order to increase academic achievement. According to Marzano, Pickering, and Pollock (2001), students can increase their grade point
average by half a point for every thirty minutes of homework each night and the amount
of parental involvement with a student’s homework has shown an effect on students
grades as well (Battle-Bailey, 2003; Cooper, Jackson, Nye, & Lindsay, 2001; Keith,
Reimers, Fehrmann, Pottebaum, & Aubey, 1986).

Effective teachers provide students with appropriate feedback on their homework
and guidance on what was done incorrectly, as well as, how to correct their mistake
(Chappius & Stiggins, 2002). This feedback must be given in a timely manner and
support the instructional goals identified by the teacher (Chappius & Stiggins, 2002;
Cotton, 2000; Marzano, Norford et al., 2001; Marzano, Pickering, & Pollord, 2001;
Walberg, 1984). Effective teachers must provide this feedback both verbally and written
(Hamre & Pianta, 2005; Singham, 2001). Effective schools not only use homework as a
tool to increase student achievement and determine mastery of content taught, they use
pre-assessments to determine students’ mastery levels (Cawelti, 2004). Furthermore,
assessments are used to group students according to their ability levels (Taylor et al.,
2000).

IBMYP teachers organize continual assessment using a criterion that corresponds
with the specific objective of the lesson being taught. The IBO requires students to
receive feedback on thinking processes, as well as, the final assignment. Furthermore,
IBMYP teachers use varied assessments that include: open-ended questions, problem
solving activities, investigations, organized debates, hands-on experimentation, analysis,
and reflection (IBO, 2010). The IBMYP’s framework encompasses an assessment
portion that uses both qualitative and quantitative assessments, as well as, peer and self
assessment techniques. IBMYP teachers select appropriate tasks and assessment tools (oral, written, or practical work) that are available within the school or district, related to subjects being taught, and/or aligned with objectives that are being measured (IBO, 2010). Different assessment practices must be utilized to effectively monitor student progress and potential.

Table 4

<table>
<thead>
<tr>
<th>Key References</th>
<th>Homework</th>
<th>Providing Meaningful Feedback</th>
<th>Using assessment information to Meet Student Needs</th>
<th>Teacher of At-Risk</th>
<th>Teachers of High Ability</th>
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Self-Efficacy and Teacher-Efficacy

The self-efficacy theory originated from the social learning theory constructed by Bandura (1977). Bandura (1986) defines self-efficacy as, “people’s judgments of their capabilities to organize and execute courses of action required to attain designated types of performances” (p.391). Self-efficacy is very different from self-esteem or self-concept (Tschannen-Moran, Hoy, & Hoy, 1998). Self esteem is approval or disproval of self and determines self worthiness (Pajares & Schunk, 2001) and self-concept is described by Coopersmith and Feldman (1974) as “beliefs, hypotheses, and assumptions that the individual has about himself” (p.199). In contrast to both self-esteem and self-concept, self-efficacy is related to a specific task.

According to Gist and Mitchell (1992), “self-efficacy is a judgment about task capability that is not inherently evaluative” (p.185). Efficacy can contribute to motivation (Maehr & Pintrich, 1997; Pintrich & Schunk, 1996) and individuals with strong self-efficacy beliefs tend to have prior experience with the task (Pajares & Schunk,
However, two individuals with similar knowledge and skills can demonstrate different behaviors for a specific task due to their self-efficacy beliefs (Pajares & Schunk, 2001; Tschannen-Moran, Hoy, & Hoy, 1998). Furthermore, one can have strong self-efficacy beliefs for one task and low self-efficacy beliefs for another task (Stajkovic & Luthans, 1998).

Self-efficacy beliefs are linked to academic achievement and learning (Hackett, 1995; Pajares, 1996; Schunk, 1991; Zimmerman, 1995). A teacher’s belief on instruction has an impact on teaching and learning (Wenner, 2001). The term teacher-efficacy is defined by Woolfolk (2008) as a “teacher’s belief that he or she can reach even difficult students to help them learn” (p.361). Teacher-efficacy encourages high expectations for students (Allinder, 1995; Dembo & Gibson, 1985; Ross, 1994) and has an effect on student motivation (Ross, 1994; Woolfolk, Rosoff, & Hoy, 1990). Teachers can experience different levels of efficacy with different tasks assigned and/or different subjects taught (Bandura, 1997). According to Bandura (1993), “teachers’ beliefs in their ability to motivate and promote learning affect the types of learning environments they create and the level of academic progress their students achieve” (p.117).

*Teacher-Efficacy and Student Learning*

Cuban (1993) stated, “The knowledge, beliefs, and attitudes that teachers have shape what they choose to do in their classrooms and explain the core of instructional practices that have endured over time” (p.256). A student’s sense of efficacy is associated with the teacher’s sense of efficacy (Anderson, Greene, & Loewen, 1988). Classroom management, learning environment, and teaching practices are influenced by the level of
teacher efficacy (Tschannen-Moran, Woolfolk, Hoy, & Hoy, 1998). A teacher with low efficacy beliefs has a negative effect on student progress and prevent the student from maximizing his/her academic potential (Bandura, 1997). However, a teacher with a strong sense of efficacy establishes a learning environment where time on task is embraced, guidance is provided to students with challenges, and a reward system is established for academic achievement (Allinder, 1994). Students assigned to teachers with a high sense of efficacy tend to perform better on achievement test than students whose teachers have lower levels of efficacy (Anderson, Greene, and Loewen, 1988).

Teacher-Efficacy and Behaviors

Teachers with a high sense of efficacy tend to be more diligent in achieving their goals, set higher expectations, and embrace more challenging tasks (Bandura, 1997; Luszczynska, Scholz, & Schwarzer, 2005). Furthermore, a high sense of efficacy tends to retain teachers in the education field longer than other teachers with a low sense of efficacy (Woolfolk, 2008). A low sense of efficacy in teachers is evident when he/she criticizes students who are faced with challenges and lose hope for students who are failing (Dembo & Gibson, 1984). However, teachers who tend to implement innovative approaches to learning and are willing to attempt different methods of teaching have a higher sense of efficacy (Allinder, 1994). Levels of efficacy have an effect on both pre-service and in-service teachers (Coladarci, 1992; Evans & Tribble, 1986). Pre-service teachers who demonstrate a higher sense of efficacy are more like to ask for assistance when dealing with disciplinary problems in the classroom (Emmer & Hickman, 1990). In-service teachers with a high sense of efficacy tend to work with students who
demonstrate low performance in the general education classroom rather than referring them to special education classes (Meijer & Foster, 1988). In general, teachers with high levels of efficacy are more enthusiastic about teaching (Allinder, 1994), provide a student-centered learning environment (Czerniak & Schriver, 1994), and experience a greater sense of satisfaction with the teaching profession (Lee, Dedrick, & Smith, 1991).

**Collective Teacher Efficacy**

Teacher efficacy and collective teacher efficacy is correlated (Goddard, 2001). Collective teacher-efficacy as defined by Goddard, Hoy, & Woolfolk (2000) as “a construct measuring teachers’ beliefs about the collective (not individual) capability of a faculty to influence student achievement; it refers to the perceptions of teachers that the efforts of the faculty of a school will have positive effect on student achievement” (p.486). Effective schools with high levels of collective efficacy set high expectations for their students and believe that all students will achieve the goals set forth (Bandura, 1997). A high sense of collective teacher-efficacy will foster a positive school climate with high morale (Dembo & Gibson, 1984), as well as, empower teachers to conquer any obstacles that limit student achievement (Moore & Esselman, 1992). Teachers are more easily persuaded to make specific decisions on student achievement when the faculty is more cohesive (Goddard et al., 2000). A school cannot attain a high level of collective teacher efficacy without establishing a shared vision that is committed to learning for students and teachers, as well as, creating a professional learning community (Marks & Louis, 1999).
Summary

The review of literature on the International Baccalaureate Organization’s Middle Years Programme, Stronge’s Model of Effective Teaching, self-efficacy, and teacher efficacy provided research based support for this study. There was limited research found on International Baccalaureate programmes and its impact on teacher effectiveness, thus, supported the significance of this study. Stronge’s (2007) Model of Effective Teaching provided a framework for this study, which examined the effectiveness of International Baccalaureate Middle Years Programme and traditional middle school teachers in a large urban school district using four of the six categories of effective teaching. The exploration of efficacy supported the use of Tschannen-Moran & Hoy’s (2001) Teachers’ Sense of Efficacy Scale to measure the level of efficacy with International Baccalaureate Middle Years Programme and traditional middle school teachers in this study.
Chapter 3 – Methodology

The purpose of this study was to compare the teaching practices and efficacy beliefs of traditional middle school teachers and International Baccalaureate Middle Years Programme (IBMYP) teachers in an urban school district using the framework of Stronge’s Model of Effective Teaching (2007), Stronge and Tucker’s (2003) Teacher Effectiveness Behavior Scale, and Tschannen-Moran & Hoy’s (2001) Teacher’s Sense of Efficacy Scale. Recommended practices for effective teaching were extracted from the following four categories of Stronge’s (2007) Model of Teacher Effectiveness: classroom management and organization, implementing instruction, monitoring student progress, and construct of teacher’s sense of efficacy from “Teacher as a Person.”

This chapter will address the following research methodological issues: (1) research questions, (2) t-Test method, (3) variables of interest, (4) sample and generalizability of this study, (5) instrumentation, (6) data collection procedures, (7) data analysis procedures, and (8) ethical safeguards.

Research Questions

The following research questions were evaluated in this study:

1. Is there a significant difference (p. <.05) in the degree to which International Baccalaureate Middle Years Programme teachers exhibit characteristics of effective classroom management and organization skills compared to traditional middle school teachers in a large urban school district?

2. Is there a significant difference (p. <.05) in the degree to which International Baccalaureate Middle Years Programme teachers exhibit effective instructional
strategies in their teaching compared to traditional middle school teachers in a large urban school district?

3. Is there a significant difference (p. <.05) in the degree to which International Baccalaureate Middle Years Programme teachers effectively use assessment practices to monitor student progress compared to traditional middle school teachers in a large urban district?

4. Is there a significant difference (p. <.05) in the degree to which teachers of International Baccalaureate Middle Years Programme students exhibit selected personal dispositions in their classroom teaching in comparison with traditional middle school teachers in a large urban district?

5. Is there a significant difference (p. <.05) in the degree to which teachers of International Baccalaureate Middle Years Programme students self-report their Teacher Efficacy beliefs in comparison with traditional middle school teachers in a large urban district?

Hypotheses

The following hypotheses were investigated in this study:

1. Classroom management and organization skills will be exhibited by both IBMYP and traditional teachers. There will not be a statistically significant difference between these two groups in this study.

2. The IBMYP focuses on holistic learning through instructional and assessment practices. The core values of the IBMYP will provide IBMYP teachers with effective instructional strategies and assessment practices. IBMYP teachers
use varied assessments that include: open-ended questions, problem solving activities, investigations, organized debates, hands-on experimentation, analysis, and reflection (IBO, 2010). Due to these practices, there will be a statistically significant difference between IBMYP and traditional teachers for instructional strategies and assessment practices in this study.

3. IBMYP teachers are responsible for providing a classroom environment where students act with integrity and honesty, as well as, take full responsibility for their actions and the consequences that accompany those actions (IBO, 2010). Due to these core beliefs of IBMYP teachers, there will be a statistically significant difference for personal dispositions between IBMYP and traditional teachers in this study.

4. Efficacy can contribute to motivation (Maehr & Pintrich, 1997; Pintrich & Schunk, 1996) and individuals with strong self-efficacy beliefs tend to have prior experience with the task (Pajares & Schunk, 2001). IBMYP and traditional teachers will not have a statistically significant difference in this study for teacher efficacy beliefs.

The t-Test

The t-Test is the most commonly used statistical data analysis procedure for hypothesis testing. There are several kinds of t-Tests, however, most researchers use the "two-sample t-Test" also referred as the "Student's t-test" or the "independent samples t-Test" (Creech, 2010). This study used a two sample t-Test to compare teaching practices and efficacy beliefs of International Baccalaureate Middle Years Programme and
Traditional Middle School teachers in a large urban district. The two sample t-Test determines if the means of two independent populations have different mean values.

The t-Test statistic determines a probability value (p-value) that indicates the differences between two independent groups. The p-value is used as a numerical measure of a hypothesis test's statistical difference. If the p-value is less than a 5% (p<.05) difference, then the null hypothesis is rejected and a statistically significant difference between the two groups is determined (Creech, 2010). Specifically, when conducting statistical hypothesis testing a (p-value) is used to determine if the research hypothesis is supported by the data from the study.

Multi-Case Study Method

Case study research is defined by Yin (2003) as “an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (p13). According to Yin (2003), a case study design should be used when: (1) “how” and “why” questions are the focus of the study, (2) the behavior of those involved in the study cannot be manipulated, (3) contextual conditions are relevant to the phenomenon under study, or (4) the boundaries between the context and phenomenon are not clear. Furthermore, a case study is a research approach that uses concrete data and methodological paradigms (Lamnek, 2005).

Yin (2003) and Stake (1995) described a variety of case studies using different terms. Yin (2003) identifies case studies as single, holistic, or multi and uses the following categories to describe case studies: explanatory, exploratory, or descriptive.
Stake (1995) categorizes case studies as intrinsic, instrumental, or collective. Yin (2003) states, "the case study inquiry copes with the technically distinctive situation in which there will be many more variables of interest than data points;...relied on multiple sources of evidence, with data needing to converge in a triangulating fashion; and...benefits from the prior development of theoretical propositions to guide data collection and analysis" (p.13-14). The multi-case study method provides an opportunity to make generalizations using observations of patterns and/or replications of the cases examined.

In research question 1, the category for classroom management and organization from Stronge's Model of Effective Teaching (2002, 2007) was used to examine characteristics of IBMYP and traditional middle school teachers in an urban school district. Stronge and Tucker's (2003) Teacher Effectiveness Behavior Scale was used to examine the effectiveness of International Baccalaureate Middle Years Programme and traditional middle school teachers in the classroom. Teacher observations were conducted and a t-Test for independent samples comparing the means of each group was used to analyze the findings in this study.

In research question 2, the category for implementing instruction from Stronge's Model of Effective Teaching (2002, 2007) was used to examine instructional strategies of IBMYP and traditional middle school teachers in an urban school district. Stronge and Tucker's (2003) Teacher Effectiveness Behavior Scale was used to examine the effectiveness of International Baccalaureate Middle Years Programme and traditional middle school teachers during classroom instruction. Teacher observations were
conducted and a t-Test comparing the means of each group was used to analyze the findings in this study.

In research question 3, the category for monitoring student progress and potential from Stronge’s Model of Effective Teaching (2002, 2007) was used to examine assessment practices of IBMYP and traditional middle school teachers in an urban school district. Stronge and Tucker’s (2003) *Teacher Effectiveness Behavior Scale* was used to examine the variety of assessment practices used by International Baccalaureate Middle Years Programme and traditional middle school teachers during classroom instruction. Teacher observations were conducted and a t-Test comparing the means of each group was used to analyze the findings in this study.

In research question 4, the category for teacher as a person from Stronge’s Model of Effective Teaching (2002, 2007) was used to examine personal dispositions of IBMYP and traditional middle school teachers’ classroom teaching practices in an urban school district. Stronge and Tucker’s (2003) *Teacher Effectiveness Behavior Scale* was used to examine the effectiveness of International Baccalaureate Middle Years Programme and traditional middle school teachers’ personal qualities during classroom instruction. Teacher observations were conducted and a t-Test comparing the means of each group was used to analyze the findings in this study.

Research question 5 was examined by administering a twenty-four item questionnaire to IBMYP and general education middle school teachers using Tschannen-Moran & Hoy’s (2001) *Teachers’ Sense of Efficacy Scale (TSES)*. Teachers self-reported their responses using online software. A t-Test was conducted using data from
TSES of IBMYP teachers and traditional middle school teachers from four urban middle schools to analyze the findings in this study.

Variables of Interest

Recommended practices from four categories of Stronge’s (2007) Effective Teaching Model and three subscales in Tschannen-Moran and Hoy (2001) Teachers’ Sense of Efficacy Scale were the variables of interest for the research questions in this study.

Characteristics of effective teaching from Stronge’s (2007) Model of Effective Teaching, Category – Classroom Management and Organization, were the variables of interest for research question 1. The following two areas of classroom management were evaluated by observations of IBMYP and traditional middle school teachers’ behaviors in the classroom using Stronge and Tucker’s (2003) Teacher Effectiveness Behavior Scale:

- Classroom Management
- Classroom Organization

Characteristics of effective teaching from Stronge’s (2007) Model of Effective Teaching, Category - Implementing Instruction, were the variables of interest for research question 2. The following six areas of instructional skills were evaluated by observations of IBMYP and traditional middle school teachers’ behavior in the classroom using Stronge and Tucker’s (2003) Teacher Effectiveness Behavior Scale:

- Instructional Differentiation
- Instructional Focus on Learning
- Instructional Clarity
• Instructional Complexity

• Expectations for Learning

• Use of Technology

Characteristics of effective teaching from Strange’s (2007) Model of Effective Teaching, *Category – Monitoring Student Progress and Potential*, were the variables of interest for research question 3. The following assessment skills were examined by observations of IBMYP and traditional middle school teachers’ behaviors in the classroom using Stronge and Tucker’s (2003) *Teacher Effectiveness Behavior Scale*:

• Assessment for Understanding

• Quality of Verbal Feedback to Students

Characteristics of effective teaching from Strange’s (2007) Model of Effective Teaching, *Category – Teacher as a Person*, were the variables of interest for research question 4. The following personal qualities were used to examine the personal dispositions of IBMYP and traditional middle school teachers’ teaching practices using Stronge and Tucker’s (2003) *Teacher Effectiveness Behavior Scale*:

• Caring

• Fairness & Respect

• Positive Relationships

• Encouragement of Responsibility

• Enthusiasm
Subscale scores from the following subscales in Tschannen-Moran and Hoy (2001) *Teachers’ Sense of Efficacy Scale* were the variables of interest for research question 5:

- Efficacy for Student Engagement
- Efficacy for Instructional Practices
- Efficacy for Classroom Management

**Participants**

A stratified random sample of 40 teachers drawn from four middle schools in an urban district was selected (10 teachers from each school). Two schools selected to implement a traditional middle school curriculum and the other two schools are authorized by the International Baccalaureate Organization (IBO) to implement the Middle Years Programme (MYP). Thus, 20 teachers implemented the IBO curriculum and 20 teachers implemented the traditional middle school curriculum.

The teachers reflected grades 5, 6, 7, and 8 who taught one or more of the following courses: mathematics, language arts, reading, humanities (social studies), science, physical education, technology, or foreign language. Beyond the selection criterion of teaching in the above noted areas, teachers were randomly selected from a pool of fully licensed teachers with at least 3 years of teaching experience for both traditional and IBMYP teachers, as well as, IB certified for IBMYP teachers. All teachers that were randomly selected to participate and declined participation, the next randomly selected teacher was invited to participate until 10 teachers from each of the four schools agreed to be participants. All four middle schools have similar student demographics.
The full inclusion model has been implemented at all four middle schools and classes consisted of at-risk, general, high-ability and gifted students at the same time. There is no admission requirements for the IBMYP at either of the two IBMYP schools selected.

All teachers from the two IBMYP schools utilized the MYP curriculum model and areas of interaction in the classroom. All teachers selected from each school for this study were highly qualified in the subject area taught under No Child Left Behind guidelines and possessed a valid teaching license. The 20 IBMYP teachers and 20 traditional middle school teachers selected to be observed were selected to complete Tschannen-Moran and Hoy’s (2001) Teachers’ Sense of Efficacy Scale as well. A request for permission to administer the TSES and conduct observations was submitted to the urban school district and approved in March 2010 and a letter was sent to the principal of each school to obtain permission for random sampling of teachers.

The sample population’s characteristics limit the generalizability of this study. The sample population taught at schools with similar student demographics, however, the sample population had different levels of experience such as: years of teaching, prerequisite courses taken by selected teachers, and levels of education completed. Also, the researcher is the principal for one of the IBMYP schools included in this study and this may affect the validity of the findings due to potential bias in teacher responses or observational data.
Instrumentation

The following instruments were used to collect data for this study: Stronge and Tucker’s (2003) *Teacher Effectiveness Behavior Scale* and Tschannen-Moran & Hoy’s (2001) *Teachers’ Sense of Efficacy Scale*. Each will be presented, in turn.

*Teacher Effectiveness Behavior Scale*

Stronge and Tucker’s (2003) *Teacher Effectiveness Behavior Scale* is a behavior-anchored rating scale that is designed to document effective teaching behavior in the classroom. The following six instructional skills, two assessment skills, two classroom management skills, and five personal qualities were examined using Stronge and Tucker’s (2003) *Teacher Effectiveness Behavior Scale*:

- Instructional Differentiation
- Instructional Focus on Learning
- Instructional Clarity
- Instructional Complexity
- Expectations for Learning
- Use of Technology
- Assessment for Understanding
- Quality of Verbal Feedback to Students
- Classroom Management
- Classroom Organization
- Caring
- Fairness & Respect
- Positive Relationships
- Encouragement of Responsibility
- Enthusiasm

The Teacher Effectiveness Summary Rating Scale is based on research of effective teaching behaviors and is designed to capture both the types of behaviors and the degree to which the participating classroom teachers exhibit those behaviors. Content validation of rating scale was achieved by comparing the subscales with the extant research on teacher effectiveness as reflected in Stronge’s (2002) meta-review of qualities of effective teachers. A table of specifications is presented in Table 5.

Table 5

Table of Specifications for Teacher Effectiveness Summary Rating Scale.

<table>
<thead>
<tr>
<th>Teacher Effectiveness Implementing Instruction, Classroom Management and Assessment Domains</th>
<th>Scale Items</th>
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<tbody>
<tr>
<td>Instructional Differentiation</td>
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<td>Instructional Focus on Learning</td>
<td>I-2</td>
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<tr>
<td>Instructional Clarity</td>
<td>I-3</td>
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<td>Instructional Complexity</td>
<td>I-4</td>
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<td>Expectations for Learning</td>
<td>I-5</td>
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</tr>
<tr>
<td>Assessment for Understanding</td>
<td>A-1</td>
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<tr>
<td>Quality of Verbal Feedback to Students</td>
<td>A-2</td>
</tr>
<tr>
<td>Classroom Management</td>
<td>M-1</td>
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<tr>
<td>Classroom Organization</td>
<td>M-2</td>
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<tr>
<td>Caring</td>
<td>P-1</td>
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<tr>
<td>Fairness &amp; Respect</td>
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<tr>
<td>Enthusiasm</td>
<td>P-5</td>
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</tbody>
</table>

Adapted from Stronge & Tucker (2003)

Concurrent validity was developed for the Scale by comparing actual teaching practices with the instrument’s intended content design. Prior to conducting the concurrent validity study for the Teacher Effectiveness Rating Scale, observers were trained in its use in an eight-hour training session that included training in the skills of conducting classroom observations. The training session also included specific training on the use of the Scale in which each observer was given three opportunities to practice using the observation instrument while viewing videotapes of teachers teaching language arts and math lessons. Five members of a research team used the same teaching videos to
establish a norm score for the assessment on the scoring rubric. Participant scores were compared to the norm scores for each dimension of the rubric. All participants who scored the video performances of teachers with an 80% or above agreement with the norm scores were selected to be observers in the field study. Those with between 70% and 79% agreement were asked to return for additional training and assessment in an effort to achieve a minimum of 80% agreement. Those with less than 70% agreement were not selected.

Following the training and selection of teams of observers, the Scale was field tested with 32 fifth-grade teachers drawn from four school districts in southeastern state classrooms. The teachers constituted a purposeful sample stratified to include approximately equal numbers of top and bottom quartile teachers as measured by residual gain scores of their students on end-of-course state reading and mathematics tests. During the field test observations, two trained observers in each classroom completed the Teacher Effectiveness Summary Rating Scale using the scoring rubric to guide their judgments about teacher effectiveness on each dimension. After an observation was completed, their individual ratings for each dimension were recorded along with their rationale for each. Once the two individual observers completed each teacher observation, they compared and discussed their respective ratings on the Teacher Effectiveness Summary Rating Form and reached consensus on the most accurate rating for each dimension in those instances in which their initial ratings differed.

The teachers observed in this study were observed and rated using a rubric from the behavior scale, with scores ranging from 1 to 4. The score of 1 was the least effective
performance score and 4 was the most effective performance score. Stronge and Tucker’s (2003) *Teacher Effectiveness Behavior Scale* was used to examine research questions 1, 2, 3, and 4 in this study.

*Teachers’ Sense of Efficacy Scale*

This study examined International Baccalaureate Middle Years Programme and traditional middle school teachers’ sense of efficacy using Tschannen-Moran & Hoy’s (2001) *Teachers’ Sense of Efficacy Scale*, or TSES. Tschannen-Moran and Hoy (2001) identifies a teachers’ sense of efficacy as “the teacher’s belief in his/her capability to execute courses of action required to successfully accomplish a specific teaching task in a particular context” (p.233). According to Tschannen-Moran et al. (1998), personal competence and the analysis of a task must be assessed to validly measure teacher efficacy and “in order to be useful and generalizable, measures of teacher efficacy need to tap teachers’ assessments of their competencies across the wide range of activities and tasks they are expected to perform” (p.219).

Tschannen-Moran and Hoy’s (2001) TSES measures the following three components: efficacy in student engagement, efficacy in instructional practices, and efficacy in classroom management. Tschannen-Moran and Hoy’s (2001) TSES uses a nine point response scale and anchored with the following descriptors: 1- nothing, 3- very little, 5- some influence, 7- quite a bit, and 9- a great deal. There are two forms of Tschannen-Moran & Hoy’s (2001) TSES: twenty-four items (long version). Tschannen-Moran and Hoy (2001) reported the following reliabilities identified in Table 6.

Table 6
Reliabilities Chart from study conducted by Tschannen-Moran & Hoy (2001)

<table>
<thead>
<tr>
<th></th>
<th>Long Version</th>
<th>Long Version</th>
<th>Long Version</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Alpha</td>
</tr>
<tr>
<td>Teachers' Sense of Efficacy Scale</td>
<td>7.1</td>
<td>.94</td>
<td>.94</td>
</tr>
<tr>
<td>Student Engagement</td>
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<td>1.1</td>
<td>.87</td>
</tr>
<tr>
<td>Instructional Practices</td>
<td>7.3</td>
<td>1.1</td>
<td>.91</td>
</tr>
<tr>
<td>Classroom Management</td>
<td>6.7</td>
<td>1.1</td>
<td>.90</td>
</tr>
</tbody>
</table>

Adapted from Tschannen-Moran & Hoy (2001)

This study used the long version to examine research question 5 and Table 7 illustrates the efficacy subscale and questionnaire items that were examined.

Table 7

*Tschannen-Moran and Hoy (2001) Teachers’ Sense of Efficacy Subscale Groupings*

<table>
<thead>
<tr>
<th>Efficacy Subscale</th>
<th>Questionnaire Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficacy for Student Engagement</td>
<td>1, 2, 4, 6, 9, 12, 14, 22</td>
</tr>
<tr>
<td>Efficacy for Instructional Practices</td>
<td>7, 10, 11, 17, 18, 20, 23, 24</td>
</tr>
<tr>
<td>Efficacy for Classroom Management</td>
<td>3, 5, 8, 13, 15, 16, 19, 21</td>
</tr>
</tbody>
</table>

Adapted from Tschannen-Moran and Hoy (2001)

Tschannen-Moran and Hoy’s (2001) Teachers’ Sense of Efficacy Scale uses a Likert-type scale with nine possible selections that range from nothing to a great deal.

The following sample questions shown in Table 8 were included in this study.
Table 8

Sample Questions from TSES Subscale Groupings

<table>
<thead>
<tr>
<th>Subscale Category</th>
<th>Questions</th>
</tr>
</thead>
</table>
| Subscale Efficacy for Student Engagement           | 4. How much can you do to motivate students who show low interest in school?  
|                                                    | 6. How much can you do to get students to believe they can do well in school work? |
| Subscale Efficacy for Instructional Practices      | 11. To what extent can you craft good questions for your students?         
|                                                    | 17. How much can you do to adjust your lessons to the proper level for individual students? |
| Subscale Efficacy for Classroom Management         | 8. How well can you establish routines to keep activities running smoothly? |
|                                                    | 13. How much can you do to get children to follow classroom rules?         |

Adapted from Tschannen-Moran and Hoy (2001)

Procedures for Data Collection

Data was collected for research questions 1 through 4 using Stronge and Tucker’s (2003) *Teacher Effectiveness Behavior Scale* and research question 5 using Tschannen-Moran and Hoy’s (2001) *Teachers’ Sense of Efficacy Scale*. Four categories of Stronge’s (2007) Model of Effective Teaching were used as the framework for this study and a review of literature on recommended effective teaching practices, teacher efficacy, and the International Baccalaureate Middle Years Programme was conducted.

Data was collected from 20 IBMYP teachers and 20 traditional middle school teachers in regards to the implementation of six instructional skills, two assessment skills, two classroom management skills, and five personal qualities using the Stronge and Tucker’s (2003) *Teacher Effectiveness Behavior Scale* in late March 2010 through 50-60 minute classroom observations at four different middle schools which included two
authorized to implement the International Baccalaureate Middle Years Program and two traditional middle schools. Stronge and Tucker's (2003) *Teacher Effectiveness Behavior Scale* was used to rate teacher's behavior in the classroom for research questions 1, 2, 3, and 4.

Data was collected from 18 IBMYP teachers and 16 traditional middle school teachers from four urban middle schools on teacher efficacy beliefs using Tschannen-Moran and Hoy's (2001) *Teachers' Sense of Efficacy Scale*. Furthermore, the 18 IBMYP teachers and 16 traditional middle school teachers were included teachers that were observed for specific teaching behaviors in the classroom. The twenty-four item questionnaire was sent to the teachers via online survey software in March 2010.

**Data Analysis**

Research questions 1, 2, 3, and 4 were analyzed using Stronge and Tucker's (2003) *Teacher Effectiveness Behavior Scale*. The data was reported using a two sample T-Test to compare the mean of the six instructional skills, two assessment skills, two classroom management skills, and five personal qualities examined in this study for IBMYP teachers and traditional middle school teachers. Research question 5 was analyzed using Tschannen-Moran and Hoy's (2001) *Teachers' Sense of Efficacy Scale* (*TSES*). The *TSES* consists of a twenty-four item questionnaire that includes the following three subscales: efficacy for student engagement, efficacy for instructional practices, and efficacy for classroom management. A two sample T-Test was conducted to determine if IBMYP teachers and traditional middle school teachers have a different
mean value on three subscales of the *TSES*. The research procedures for data instrumentation, collection, and analysis in this study can be found in Table 9.

Table 9

*Research Procedures for Data Instrumentation, Collection, and Analysis*

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Instrumentation</th>
<th>Collection</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Teacher Effectiveness Behavior Scale (Strong &amp; Tucker, 2003)</td>
<td>Observation</td>
<td>t-Test</td>
</tr>
<tr>
<td>2</td>
<td>Teacher Effectiveness Behavior Scale (Strong &amp; Tucker, 2003)</td>
<td>Observation</td>
<td>t-Test</td>
</tr>
<tr>
<td>3</td>
<td>Teacher Effectiveness Behavior Scale (Strong &amp; Tucker, 2003)</td>
<td>Observation</td>
<td>t-Test</td>
</tr>
<tr>
<td>4</td>
<td>Teacher Effectiveness Behavior Scale (Strong &amp; Tucker, 2003)</td>
<td>Observation</td>
<td>t-Test</td>
</tr>
<tr>
<td>5</td>
<td>Teachers’ Sense of Efficacy Scale (Tschanen-Moran &amp; Hoy, 2001)</td>
<td>24-Item Questionnaire</td>
<td>t-Test</td>
</tr>
</tbody>
</table>

Ethical Safeguards

Anonymity of all participants in this study was protected by not including participants’ names or information on the questionnaire or observation tool. A request for approval of research was approved by the urban school district in March 2010 and the research proposal was approved by the College of William & Mary’s Protection of Human Subjects Committee in March 2010 as well.
Chapter 4 – Summary of Results

This study compared the teaching practices and efficacy beliefs of traditional middle school teachers and International Baccalaureate Middle Years Programme (IBMYP) teachers in an urban school district using the framework of Stronge’s Model of Effective Teaching (2007), Stronge and Tucker’s (2003) Teacher Effectiveness Behavior Scale, and Tschannen-Moran & Hoy’s (2001) Teacher’s Sense of Efficacy Scale. Recommended practices for effective teaching were extracted from the following four categories of Stronge’s (2007) Model of Teacher Effectiveness: classroom management and organization, implementing instruction, monitoring student progress, and the construct of teacher’s sense of efficacy from “Teacher as a Person.”

The summary of results in this chapter were organized into the following sections: (a) The Sample, (b) Response Rate to the Study, (c) Observation Sample Process, (d) Results of Research Question 1, (e) Results of Research Question 2, (f) Results of Research Question 3, (g) Results of Research Question 4, and (h) Results of Research Question 5. Sections (d) – (h) provide a descriptive analysis of the five research questions with tables to illustrate results and a summary of the results at the end of each section.

The Sample

A stratified random sample of 40 teachers was selected from four middle schools in a large urban district. The urban district is comprised of 139 schools including 72 elementary, 34 middle schools, and 21 high schools. Furthermore, the urban district consists of 75,000 students from 80 different countries who speak 70 different languages.
Each middle school selected for this study consisted of a student enrollment between 400-570 students and diverse student demographics. The full inclusion model was implemented at all four middle schools and classes consisted of at-risk, general, high-ability and gifted students at the same time.

There were 10 teachers selected from each school which gave a total of 40 teachers who participated in the study. Both groups included male and female participants. Furthermore, the IBMYP and traditional teachers had a range for years of teaching experience, as well as, degrees obtained. Two selected schools implemented a traditional middle school curriculum and the other two schools were authorized by the International Baccalaureate Organization (IBO) to implement the Middle Years Programme (MYP). The two IBMYP schools were whole school, meaning all students were a part of the IBMYP and no admissions requirements were implemented. A total of 20 teachers utilized IBO curriculum and the other 20 teachers utilized traditional middle school curriculum.

The teachers reflected grades 5, 6, 7, and 8 and taught one or more of the following courses: mathematics, language arts, reading, humanities (social studies), science, physical education, technology, or foreign language. All teacher participants had at least three years of teaching experience, full state teaching licensure, and were highly qualified according to No Child Left Behind guidelines in the content area taught.

Teacher participants from the two IBMYP schools had received official International Baccalaureate Middle Years Programme category II training through the International Baccalaureate Organization within the past three years. The overall purpose of IBO
category II training is to provide a forum for experienced IB educators, focus on program delivery. Furthermore, there is an emphasis on assessment, teaching and learning methodologies, and exploring best practice in the classroom during this training (IBO, 2010).

A total of three teachers randomly selected declined participation. Specifically, two teachers from the selection pool of traditional teachers declined participation and one from the selection pool of IBMYP teachers. Upon their declining to participate, the researcher randomly selected the next eligible teachers from the selection pool to participate until 10 teachers from each of the four schools agreed to be participants.

All teachers from the two IBMYP schools utilized the MYP curriculum model, IB learner profile, and areas of interaction in the classroom. Furthermore, the 20 IBMYP teachers and 20 traditional middle school teachers who were observed completed Tschannen-Moran and Hoy’s (2001) Teachers’ Sense of Efficacy Scale (TSES) using an online survey program. A request for permission to administer the TSES and conduct observations was approved by the urban school district in March, 2010, and letters were sent to the principal of each participating school to obtain permission for random sampling of teachers. Upon approval from principal, a letter was sent to each randomly selected teacher for participation approval prior to the observation and the online TSES was sent via email to participants for completion.
Response Rate to the Study

Observation Sample

A school participation letter was sent to select schools with similar student enrollment numbers and student demographics to solicit their participation in the research study by the researcher. Upon the principal’s approval of participating in the study, randomly selected teachers from a pool of teachers who met the participant criteria were provided with a letter that requested their participation in the study. The letter requested to permit the researcher to conduct (1) 50-60 minute observation and record the teaching behaviors of the participant using the Teacher Effectiveness Behavior Scale (Stronge & Tucker, 2003).

Participants were informed that their participation was voluntary and all information would be handled in an anonymous manner. Also, teachers were given an option to decline participation by checking the designated box on the letter and returning the denial letter to the researcher. Three teachers returned their forms to decline participation to the researcher and another randomly selected teacher was sent the participation letter. There were 20 (n=20) IBMYP teachers and 20 (n=20) traditional middle school teachers who agreed to participate. The total observation sample comprised of 40 (n=40) teachers of 43 teachers which gave a total response rate of 93%. The principal and teacher participation letters can be found in Appendices B and C.

Teachers’ Sense of Efficacy Sample

All teachers that volunteered to be observed in this study received an email with an online version of the 24-item questionnaire on Teachers’ Sense of Efficacy (TSES).
The first email attempt prior to the observation generated a total of 11 IBMYP teachers who completed the online TSES questionnaire and 10 traditional teachers. A second email attempt was conducted after the observation cycle which resulted in an additional 7 IBMYP teachers who completed the online TSES questionnaire and 6 traditional teachers. A total of 18 (n=18) IBMYP teachers completed the online TSES questionnaire and 16 (n=16) traditional teachers. The total number of online questionnaires completed by both groups totaled 34 (n=34) of the 40 potential participants which resulted in a response rate of 85%.

Observation Sample Process

Forty 50-60 minute observations were conducted at four schools which consisted of two IBMYP schools and two traditional schools in a large urban school district. Data was collected by scripting teacher behaviors during the classroom observation and investigating teacher practices. Stronge & Tucker's (2003) Teacher Effectiveness Behavior Scale was the observation tool for all observations. The TEBS rubric was used to rate the level of effectiveness with 1, least effective to 4, most effective. The following four skills were observed during each observation: instructional skills, assessment skills, classroom management skills, and personal qualities.

Results of Research Question 1

Research Question 1: Is there a significant difference (p. <.05) in the degree to which International Baccalaureate Middle Years Programme teachers exhibit characteristics of effective classroom management and organization skills compared to traditional middle school teachers in a large urban school district?
Procedure

The researcher conducted a total of 40 observations on IBMYP and traditional teachers in a large urban school district. The researcher scripted teacher activities, instruction, and behaviors during the observation. The script from the observation was analyzed using the following two classroom management skills:

- Classroom Management
- Classroom Organization

The researcher identified specific strategies and behaviors during the observation using Stronge and Tucker’s (2003) Teacher Effectiveness Behavior Scale (TEBS) to determine their level effectiveness. The participants were put into two groups: IBMYP and Traditional. IBMYP teachers were identified as IB1-IB20 to provide anonymity to participants and traditional teachers were identified as TDL1 – TDL20. The researcher used the TEBS to rate teachers’ level of effectiveness from 1 to 4 and compared the level ratings of IBMYP teachers and traditional teachers.

Classroom Management and Organization Skills of Traditional Teachers

The traditional middle school teachers in this study used a variety of strategies to manage their students and organize the daily instruction. TDL3, TDL8 – TDL17, TDL19, and TDL20 used effective organizational strategies that provided an environment for their students that was conducive for learning, as well as, preventive management strategies that maximized learning opportunities for students during instruction.

TDL3 had a student off task during the lesson and the teacher mentioned to the student that he would be called on to answer the next question. TDL3 called on the
student for the next question and the student answered correctly, as well as, got back on task with the class. TDL8’s students knew exactly what to expect during the class period observed. TDL8 returned graded papers to students and students knew exactly where to put them and minimal classroom disturbance occurred during this transition time. TDL9 administered an assessment to students and during testing a few students were able to exit the classroom as needed and returned without disruption of others.

TDL11 had a smooth transition from mathematics to social studies. Also, TDL11 classroom was set up in three pods of box desks and several double desks scattered throughout the classroom, so students were able to get materials without disrupting class procedures or the lesson presented. TDL13 was mobile throughout the classroom and was able to prevent disruptions before they occurred by tapping students on the shoulder or giving eye contact to shift behaviors. TDL15 provided a u-shaped classroom arrangement where all students were visible to the teacher during instruction. TDL17 provided a schedule and procedures for the day’s lesson to limit class interruptions for lesson activities.

Four traditional teachers in this study demonstrated little organization of tasks and materials and/or were inconsistent in organization tasks. Also, these four teachers used primarily reactive management strategies. TDL1 spent a lot of the class period asking students to quiet down; however, students remained off task. TDL2 had students talking throughout the lesson and off task trying to sharpen pencils or retrieve other assignments from an assignment table while TDL2 was teaching the lesson to the class. TDL7 ignored students’ misbehavior which led to a chaotic classroom and many students were
off task. Some traditional teachers had classroom management and organization deficiencies; however, a significant amount of traditional teachers possessed effective classroom management and organization skills. The level ratings for classroom management and organization skills of traditional teachers in this study, as well as, mean and standard deviation can be found in Table 10.

Table 10

*Level Ratings on Classroom Management and Organization for Traditional Teachers*

<table>
<thead>
<tr>
<th>Traditional Teacher</th>
<th>Classroom Management M-1 Level Rating</th>
<th>Classroom Organization M-2 Level Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDL1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>TDL2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>TDL3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>TDL4</td>
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<td>3</td>
</tr>
<tr>
<td>TDL5</td>
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</tr>
<tr>
<td>TDL6</td>
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</tr>
<tr>
<td>TDL7</td>
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<tr>
<td>TDL8</td>
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</tr>
<tr>
<td>TDL9</td>
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</tr>
<tr>
<td>SD</td>
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<td>0.79</td>
</tr>
</tbody>
</table>

*Classroom Management and Organization Skills of IBMYP Teachers*

IBMYP teachers demonstrated effective classroom management and organization skills in this study. Eighteen IBMYP teachers received a level 3 or 4 score in
management and organization. These teachers used effective organizational strategies or redirected students during instruction to provide a positive learning environment for students. Furthermore, the eighteen IBMYP teachers incorporated tasks, materials, and space where students were able to have limited disruptions and their lessons transitioned smoothly. IB1 acknowledged student misbehavior immediately and prevented student disruptions during instruction. IB3 posted classroom rules on the board and students were aware of the classroom routine for daily instruction. IB5 had a policy where students write their own pass and exit the classroom when needed to prevent interruption of instruction while IB5 taught the material presented.

IB6 classroom included students with special needs and IB6 provided a point system for students to receive incentives for good behavior. Students were on task and expectations were on the board. IB6 pointed to the expectation list when a student attempted to talk during instruction. IB7 had students clap twice and put up antler ears with their hands when the group activity got too loud. The students knew the clap routine and there was complete silence after the initial command. IB8 posted state objectives and classroom agenda on the board to provide students with a tasks set for the day’s lesson.

IB11 redirected students with humor and students have access to all materials and supplies without asking the teacher. IB13 used an academic question to redirect students’ attention and students know the classroom routine for class activities. Specifically, students knew when to put books away and raised hands to answer questions. IB14 roved the classroom to prevent students from misbehaving and provided a small living space for students to discuss lesson material with a small group while she worked with the rest of
the class. IB18 provided cues such as “hitch hike” where students raise their thumbs if there is too much talking.

There were two IBMYP teachers that demonstrated least effective classroom management and organization skills during classroom observations. IB15 used reactive strategies such as yelling, fussing, and demerits which resulted in no change of behaviors during the lesson. IB16 sat behind the desk for most of the period and many students had outbursts during instruction which caused a disturbance. One student was removed from the classroom for being disruption and invited back to the classroom later during the period. The level ratings for classroom management and organization skills of IBMYP teachers, as well as, mean and standard deviation can be found in Table 11.
Table 11

Level Ratings on Classroom Management and Organization for IBMYP Teachers

<table>
<thead>
<tr>
<th>IBMYP Teacher</th>
<th>Classroom Management M-1 Level Rating</th>
<th>Classroom Organization M-2 Level Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>IB1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>IB2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>IB3</td>
<td>3</td>
<td>4</td>
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<tr>
<td>IB4</td>
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<td>4</td>
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<tr>
<td>IB5</td>
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<td>IB6</td>
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<td>IB8</td>
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<td>IB12</td>
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<td>IB13</td>
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<td>IB14</td>
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<td>IB15</td>
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<td>IB16</td>
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<td>IB17</td>
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<td>IB18</td>
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<td>IB19</td>
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<tr>
<td>STDV</td>
<td>0.66</td>
<td>0.69</td>
</tr>
</tbody>
</table>

The mean and standard deviation of participants from both groups were compared and analyzed to determine the p-value and statistical significance of classroom management and organization skills for IBMYP teachers compared to traditional teachers. The mean and standard deviation of IBMYP teachers’ classroom management skills in this study were 3.70 and 0.66. The mean and standard deviation of traditional middle school teachers’ classroom management in this study were 3.20 and 0.89. The
standard error of difference equaled 0.25. The t-value equaled 2.015, resulting in \( p=0.05 \), a significant difference \((p<0.05)\) in classroom management skills of International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers. The t-Test table for classroom management skills can be found in Table 12.

Table 12

\( \text{t-Test for Classroom Management} \)

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>DF</th>
<th>p</th>
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<tbody>
<tr>
<td>IBMYP Teachers</td>
<td>20</td>
<td>3.70</td>
<td>0.66</td>
<td>2.015</td>
<td>38</td>
<td>0.05</td>
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<tr>
<td>Traditional Teachers</td>
<td>20</td>
<td>3.20</td>
<td>0.89</td>
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</tbody>
</table>

The mean and standard deviation of IBMYP teachers’ classroom organization skills in this study were 3.45 and 0.69. The mean and standard deviation of traditional middle school teachers’ classroom management in this study were 3.25 and 0.79. The standard error of difference equaled 0.23. The t-value equaled 0.86, resulting in \( p=0.4 \), a non-significant difference \((p<0.05)\) in classroom organization skills of International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers. The t-Test table for classroom management skills can be found in Table 13.

Table 13

\( \text{t-Test for Classroom Organization} \)

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>DF</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBMYP Teachers</td>
<td>20</td>
<td>3.45</td>
<td>0.69</td>
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<td>0.40</td>
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<tr>
<td>Traditional Teachers</td>
<td>20</td>
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<td>0.89</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Results of Research Question 2

Research Question 2: Is there a significant difference (p. <.05) in the degree to which International Baccalaureate Middle Years Programme teachers exhibit effective instructional strategies in their teaching compared to traditional middle school teachers in a large urban school district?

Procedure

The researcher conducted a total of 40 observations on IBMYP and traditional teachers in a large urban school district. The researcher scripted teacher activities, instruction, and behaviors during the observation. The script from the observation was analyzed using the following six instructional skills:

- Instructional Differentiation
- Instructional Focus on Learning
- Instructional Clarity
- Instructional Complexity
- Expectations for Learning
- Use of Technology

The researcher identified specific strategies and behaviors during the observation using Stronge and Tucker’s (2003) Teacher Effectiveness Behavior Scale (TEBS) to determine their level effectiveness. The participants were put into two groups: IBMYP and Traditional. IBMYP teachers were identified as IB1-IB20 to provide anonymity to participants and traditional teachers were identified as TDL1 – TDL20. The researcher
used the TEBS to rate teachers' level of effectiveness from 1 to 4 and compared the level ratings of IBMYP teachers and traditional teachers.

**Instructional Skills of Traditional Teachers**

Traditional teachers in this study demonstrated effective and least effective strategies during the observation cycle. Some of the teachers only provided whole group instruction while others used a variety of instructional strategies in the classroom to meet all students' needs. Seven traditional teachers allocated maximum time on task with minimal interruptions. Fifteen traditional teachers communicated with students effectively and provided guided instruction using examples to provide a better understanding of the content presented or provided step by step directions with clarity.

Twelve traditional teachers provided learning activities that required complex thinking throughout the lesson or during some of the lesson presented. Twelve traditional teachers promoted student responsibility and encouraged students to provide maximum effort throughout the lesson or during different times of instruction. Teachers that had access to technology utilized these resources during the lesson; however, ten teachers did not have access to an overhead, projector, laptop, or computers for students.

TDL1 did not provide differentiated instruction and only used the board for teaching. There was no question and answer or other instructional strategies implemented to provide students a better understanding of the material presented. However, TDL3 used visuals, direct instruction, and examples to provide students with understanding. TDL5 provided a PowerPoint, group activity, guided instruction and the assignment was explained, modeled, discussed, and group roles were assigned. TDL6
did not provide examples for students and higher order thinking questions were not utilized during the observation. TDL8 solely relied on the textbook for instruction and did not provide students with an explanation for the homework graded.

TDL10 taught the entire period and provided guided, shared, and independent practice during the lesson. TDL11 students were asked to compare and contrast Anne Frank and Numbers and Stars to better understand World War II. TDL13 students were given a slip of paper to describe what it meant to them and how it was symbolic. Also, TDL13 provide small group work, whole group, and independent practice. The level ratings for instructional skills of traditional teachers, as well as, the mean and standard deviation are provided in Table 14.
Table 14

*Level Ratings on Instructional Skills for Traditional Teachers*

<table>
<thead>
<tr>
<th>Traditional Teacher</th>
<th>1-1 Level Rating</th>
<th>1-2 Level Rating</th>
<th>1-3 Level Rating</th>
<th>1-4 Level Rating</th>
<th>1-5 Level Rating</th>
<th>1-6 Level Rating</th>
</tr>
</thead>
<tbody>
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<td>2</td>
<td>2</td>
</tr>
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<td>1</td>
</tr>
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<td>3</td>
<td>3</td>
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<td>2</td>
</tr>
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<td>4</td>
<td>4</td>
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<td>1</td>
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<tr>
<td>TDL13</td>
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<td>0.93</td>
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</tbody>
</table>

*Instructional Skills of IBMYP Teachers*

IBMYP teachers in this study demonstrated effective instructional strategies during the classroom observation. Seventeen IBMYP teachers use a variety of instructional strategies with fluency and flexibility to provide individualized instruction.
for all are most of their students. Nineteen IBMYP teachers focused on instruction by maximizing the time on task with minor interruptions during instruction. Nineteen IBMYP teachers effectively communicated with students and provided plentiful or some instructional examples to provide students a better understanding of material presented during the observation. Seventeen IBMYP teachers provided learning activities that increased complex thinking. Seventeen IBMYP teachers consistently encouraged students to give maximum or consistent effort, as well as, stressed student responsibility. More than half of the IBMYP teachers incorporated technology into the lesson presented during the observation.

IB1 provided a read aloud, independent practice, guided instruction, and a group activity to help students understand the different moon phases. IB2 used real life stories to help students understand the vocabulary words in the literature being read in a shared reading circle. However, IB15 used whole group instruction for the entire class period and there were limited opportunities for students to discuss information presented. IB6 utilized the entire class period for learning and students were always engaged (writing, speaking, discussion, independent work, or board work). IB8 facilitated student led discussion on technology and provided opportunities for higher order thinking, as well as, opportunities to provided different types of storage and memory devices.

IB13 provided an opportunity for students to think through their reading by modeling think aloud with students. Also, the IB13 made connections between social studies and language A. IB16 provided students an opportunity to present projects in Spanish and transitioned from presentations to a whiteboard activity and later an
question/answer session. The level ratings for instructional skills of IBMYP teachers, as well as, mean and standard deviation are provided in Table 15.

Table 15

*Level Ratings on Instructional Skills for IBMYP Teachers*

<table>
<thead>
<tr>
<th>IBMYP Teacher</th>
<th>I-1 Level Rating</th>
<th>I-2 Level Rating</th>
<th>I-3 Level Rating</th>
<th>I-4 Level Rating</th>
<th>I-5 Level Rating</th>
<th>I-6 Level Rating</th>
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<td>3.45</td>
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<td>0.61</td>
<td>0.60</td>
<td>0.73</td>
<td>0.76</td>
<td>1.14</td>
</tr>
</tbody>
</table>

The mean and standard deviation of participants from both groups were compared and analyzed to determine the p-value and statistical significance of instructional skills for IBMYP teachers compared to traditional teachers. The mean and standard deviation
of IBMYP teachers’ instructional differentiation in this study were 3.55 and 0.76. The mean and standard deviation of traditional middle school teachers’ instructional differentiation in this study were 2.75 and 1.12. The standard error of difference equaled 0.30. The t-value equaled 2.65, resulting in $p=0.01$, a significant difference ($p<0.05$) in instructional differentiation of International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers. The t-Test table for instructional differentiation can be found in Table 16.

Table 16

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>DF</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBMYP Teachers</td>
<td>20</td>
<td>3.55</td>
<td>0.76</td>
<td>2.65</td>
<td>38</td>
<td>0.01</td>
</tr>
<tr>
<td>Traditional Teachers</td>
<td>20</td>
<td>2.75</td>
<td>1.12</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The mean and standard deviation of IBMYP teachers’ instructional focus on learning in this study were 3.50 and 0.61. The mean and standard deviation of traditional middle school teachers’ instructional focus on learning in this study were 3.15 and 0.81. The standard error of difference equaled 0.23. The t-value equaled 1.54, resulting in $p=0.13$, a non-significant difference ($p<0.05$) in instructional focus on learning of International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers. The t-Test table for instructional focus on learning can be found in Table 17.
Table 17

*t-Test for Instructional Focus on Learning*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>DF</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBMYP Teachers</td>
<td>20</td>
<td>3.50</td>
<td>0.61</td>
<td>1.54</td>
<td>38</td>
<td>0.13</td>
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<tr>
<td>Traditional Teachers</td>
<td>20</td>
<td>3.15</td>
<td>0.81</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The mean and standard deviation of IBMYP teachers’ instructional clarity in this study were 3.55 and 0.60. The mean and standard deviation of traditional middle school teachers’ instructional clarity in this study were 3.10 and 0.91. The standard error of difference equaled 0.25. The t-value equaled 1.84, resulting in p=0.07, a non-significant difference (p<0.05) in instructional clarity of International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers. The t-Test table for instructional clarity can be found in Table 18.

Table 18

*t-Test for Instructional Clarity*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>DF</th>
<th>p</th>
</tr>
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<tbody>
<tr>
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<td>3.55</td>
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<td>1.84</td>
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<td>0.07</td>
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<tr>
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<td>3.10</td>
<td>0.91</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

The mean and standard deviation of IBMYP teachers’ instructional complexity in this study were 3.30 and 0.73. The mean and standard deviation of traditional middle school teachers’ instructional complexity in this study were 2.85 and 0.93. The standard error of difference equaled 0.27. The t-value equaled 1.70, resulting in p=0.1, a non-
significant difference (p<.05) in instructional complexity of International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers. The t-Test table for instructional complexity can be found in Table 19.

Table 19

\textit{t-Test for Instructional Complexity}

<table>
<thead>
<tr>
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<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>DF</th>
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</thead>
<tbody>
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<td>IBMYP Teachers</td>
<td>20</td>
<td>3.30</td>
<td>0.73</td>
<td>1.70</td>
<td>38</td>
<td>0.10</td>
</tr>
<tr>
<td>Traditional Teachers</td>
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<td>2.85</td>
<td>0.93</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

The mean and standard deviation of IBMYP teachers' expectations for student learning in this study were 3.45 and 0.76. The mean and standard deviation of traditional middle school teachers' expectations for student learning in this study were 3.05 and 0.69. The standard error of difference equaled 0.23. The t-value equaled 1.75, resulting in p=0.09, a non-significant difference (p<.05) in instructional expectations for student learning of International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers. The t-Test table for expectations for student learning can be found in Table 20.

Table 20

\textit{t-Test for Expectations for Student Learning}

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
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<tbody>
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<td>IBMYP Teachers</td>
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<td>3.45</td>
<td>0.76</td>
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<td>3.05</td>
<td>0.69</td>
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</tr>
</tbody>
</table>
The mean and standard deviation of IBMYP teachers’ use of technology in this study were 2.60 and 1.19. The mean and standard deviation of traditional middle school teachers’ use of technology in this study were 2.00 and 1.21. The standard error of difference equaled 0.38. The t-value equaled 1.58, resulting in \( p=0.12 \), a non-significant difference \( (p<.05) \) in the use of technology for International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers. The t-Test table for expectations for student learning can be found in Table 21.

Table 21

<table>
<thead>
<tr>
<th>t-Test for Use for Technology</th>
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<tbody>
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</tr>
<tr>
<td>IBMYP Teachers</td>
</tr>
<tr>
<td>Traditional Teachers</td>
</tr>
</tbody>
</table>

Results of Research Question 3

*Research Question 3*: Is there a significant difference \( (p < .05) \) in the degree to which International Baccalaureate Middle Years Programme students effectively use assessment practices to monitor student progress compared to traditional middle school teachers in a large urban district?

*Procedure*

The researcher conducted a total of 40 observations on IBMYP and traditional teachers in a large urban school district. The researcher scripted teacher activities,
instruction, and behaviors during the observation. The script from the observation was analyzed using the following two assessment skills:

- Assessment of Understanding
- Quality of Verbal Feedback to Student

The researcher identified specific strategies and behaviors during the observation using Stronge and Tucker's (2003) Teacher Effectiveness Behavior Scale (TEBS) to determine their level effectiveness. The participants were put into two groups: IBMYP and Traditional. IBMYP teachers were identified as IB1-IB20 to provide anonymity to participants and traditional teachers were identified as TDL1 – TDL20. The researcher used the TEBS to rate teachers’ level of effectiveness from 1 to 4 and compared the level ratings of IBMYP teachers and traditional teachers.

Assessment Skills of Traditional Teachers

A variety of assessment practices to monitor student learning using informal or formal assessments are used by effective teachers. Assessments will monitor student progress and can be conducted by questioning, as well as, formative and summative assessments (Stronge & Tucker, 2003). The assessment skills in this study focused on assessment for understanding and quality of feedback to students. Twelve traditional teachers in this study regularly or periodically checked for understanding through student work, questioning, observation, and/or discussion. Fourteen traditional teachers provided verbal consistently throughout the lesson to address students’ strengths and weaknesses.

TDL1 asked students the following questions: What is an adverb? How does an adverb help? TDL3 roved the classroom and checked for understanding while students
were working on the class assignment, as well as, provided immediate feedback to
students on problems from the lesson. TDL5 had students give group presentations and
immediate feedback was given. However, TDL7 provided students with an assignment
but did not check for understanding throughout the lesson. TDL9 provided a
question/answer session; however, TDL9 did not call on students to respond to questions
discussed. TDL11 provided many opportunities for students to be assessed through
questioning, peer work, review, and editing.

TDL13 constantly asked students questions to clarify meaning and provided
eamples when needed. However, TDL14 did not provide verbal feedback to the
students. TDL16 used a lot of questioning techniques to monitor student learning on
organizing data in mathematics. TDL17 provided a constant stream of feedback to
students and class discussion about the material presented. The level ratings for
assessment skills of traditional teachers in this study, as well as, the mean and standard
deviation can be found in Table 22.
Table 22

Level Ratings on Assessment Skills for Traditional Teachers

<table>
<thead>
<tr>
<th>Traditional Teacher</th>
<th>Assessment of Understanding A-1 Level Rating</th>
<th>Quality of Verbal Feedback to Student A-2 Level Rating</th>
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Assessment Skills of IBMYP Teachers

Assessment is an integral component of the International Baccalaureate Middle Years Programme. IBMYP students are assessed in varied ways in all content areas using formative, summative, formal, and informal assessments. Eighteen IBMYP teachers provided feedback that was fair and demonstrated high expectations for all students by encouraging them to ask questions and contribute to the lesson. Eighteen
IBMYP teachers were flexible with instructional decision making and identified students that needed clarification prior to transition to next activity.

IB1 facilitated dialogue between students regarding the science lesson and provided feedback consistently throughout the lesson. IB2, IB3, and IB4 provided questioning, read aloud, review, and independent reading to check for understanding. IB6 coached students to find the correct answer and student-led discussion was facilitated by the teacher. Also, appropriate responses were provided to students and an explanation was regarding correct answers were given. IB9 walked around the classroom to check students answers and provide feedback, as well as, asked specific questions to check for understanding. IB12 redirected students when answers were incorrect and provided individual feedback to students.

IB14 frequently monitors understanding while students are taking notes and addresses students throughout the lesson to provide a better understanding of material presented. Also, students were given opportunities to reflect on their poems with the class while the teacher provided feedback. IB16 provided whiteboards for students to provide responses to questions and teacher monitored student learning through responses. IB19 allowed students to lead the discussion and provided clarification when appropriate.

The level ratings for assessment skills of IBMYP teachers in this study, as well as, mean and standard deviation can be found in Table 23.
Table 23

*Level Ratings on Assessment Skills for IBMYP Teachers*

<table>
<thead>
<tr>
<th>IBMYP Teacher</th>
<th>Assessment of Understanding A-1 Level Rating</th>
<th>Quality of Verbal Feedback to Student A-2 Level Rating</th>
</tr>
</thead>
<tbody>
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<td>IB1</td>
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</tr>
<tr>
<td>IB2</td>
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<td>3</td>
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<tr>
<td>Mean</td>
<td>2.85</td>
<td>2.95</td>
</tr>
<tr>
<td>SD</td>
<td>1.04</td>
<td>0.76</td>
</tr>
</tbody>
</table>

The mean and standard deviation of participants from both groups were compared and analyzed to determine the p-value and statistical significance of assessment skills for IBMYP teachers compared to traditional teachers. The mean and standard deviation of IBMYP teachers' assessment for understanding in this study were 3.45 and 0.69. The mean and standard deviation of traditional middle school teachers' assessment for understanding in this study were 2.85 and 1.04. The standard error of difference equaled 0.28. The t-value equaled 2.15, resulting in $p=0.04$, a significant difference ($p<.05$) in
assessment for understanding of International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers. The t-Test table for assessment for understanding of students can be found in Table 24.

Table 24

<table>
<thead>
<tr>
<th></th>
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<th>SD</th>
<th>t</th>
<th>DF</th>
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<td>IBMYP Teachers</td>
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<td>3.45</td>
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<td>2.15</td>
<td>38</td>
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<tr>
<td>Traditional Teachers</td>
<td>20</td>
<td>2.85</td>
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</tr>
</tbody>
</table>

The mean and standard deviation of IBMYP teachers' quality of verbal feedback in students in this study were 3.40 and 0.68. The mean and standard deviation of traditional middle school teachers' quality of verbal feedback in students in this study were 2.95 and 0.76. The standard error of difference equaled 0.23. The t-value equaled 1.97, resulting in p=0.06, a non-significant difference (p<.05) in quality of verbal feedback in students of International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers. The t-Test table for quality of verbal feedback in students can be found in Table 25.

Table 25

<table>
<thead>
<tr>
<th></th>
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</tr>
</tbody>
</table>
Results of Research Question 4

Research Question 4: Is there a significant difference (p. <.05) in the degree to which teachers of International Baccalaureate Middle Years Programme students exhibit selected personal dispositions in their classroom teaching in comparison with traditional middle school teachers in a large urban district?

Procedure

The researcher conducted a total of 40 observations on IBMYP and traditional teachers in a large urban school district. The researcher scripted teacher activities, instruction, and behaviors during the observation. The script from the observation was analyzed using the following five personal qualities:

- Caring
- Fairness & Respect
- Positive Relationships
- Encouragement of Responsibility
- Enthusiasm

The researcher identified specific strategies and behaviors during the observation using Stronge and Tucker’s (2003) Teacher Effectiveness Behavior Scale (TEBS) to determine their level effectiveness. The participants were put into two groups: IBMYP and Traditional. IBMYP teachers were identified as IB1-IB20 to provide anonymity to participants and traditional teachers were identified as TDL1 – TDL20. The researcher used the TEBS to rate teachers’ level of effectiveness from 1 to 4 and compared the level ratings of IBMYP teachers and traditional teachers.
Personal Qualities of Traditional Teachers

Establishing relationships with students can provide effective teachers an opportunity to maximize student learning through caring, respect, positivity, encouragement, and enthusiasm. Fifteen traditional teachers in this study demonstrated a caring manner with a commitment to their students. Sixteen traditional teachers demonstrated fairness and respect towards students. Seventeen traditional teachers interacted with students in a positive manner and established a classroom that is enjoyable. Fifteen traditional teachers in this study encouraged students to be active in the lesson and take responsibility for their learning. Seventeen traditional teachers demonstrated a positive attitude or enthusiasm towards teaching and learning.

TDL2 provided a warm classroom environment and praised students for their accomplishments in the classroom, as well as, encouraged students to take responsibility and do their best. Specifically, TDL2 told students, “You can do it...you can turn in all of your assignments on time...boys and girls we must break this late work cycle before you go to the sixth grade!” TDL3 motivated students and had a genuine love for teaching. Students were respectful and humor was used to keep students on task. TDL3 responded to students with respect and all students were treated equally. TDL5 used encouraging words such as very good, great, or class well done! However, TDL8 seemed to not have a positive relationship with the students and made some sarcastic comments towards the students such as: “Why are you shocked?” and “The next answer is obvious?”
TDL10 waited patiently for students to respond to questions from the lesson and students were eager to share their responses with the class. Also, TDL10 was eager to hear student responses and demonstrated great enthusiasm. TDL13 apologized to the class and a directly after the teacher's apology, the student apologized to another student. TDL13 laughed with students and all students were expected to contribute to the lesson. TDL16 greeted all students upon arrival and provided encouraging words to each group during their group activity. TDL20 used positive words to encourage struggling students and called on students equally to respond to the material presented. The level ratings for personal qualities of IBMYP teachers, as well as, mean and standard deviation can be found in Table 26.
Table 26

Level Ratings on Personal Qualities of Traditional Teachers

<table>
<thead>
<tr>
<th>Traditional Teacher</th>
<th>P-1 Level Rating</th>
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<th>P-3 Level Rating</th>
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Personal Qualities of IBMYP Teachers

Personal qualities of IBMYP teachers was examined using Stronge and Tucker's (2003) Teacher Effectiveness Behavior Scale to rate teacher’s behaviors. Nineteen
IBMYP teachers in this study demonstrated a commitment to help every child in their classroom in a caring manner. Eighteen IBMYP teachers demonstrated fairness and respect towards students in their classrooms by providing opportunities to participate or promoting positive qualities consistently in class. Eighteen IBMYP teachers consistently modeled positive relationships and provided a nurturing environment for students to learn, as well as, enjoy the school experience. Nineteen IBMYP teachers encouraged students to take responsibility for their learning by actively participating and setting high expectations. Nineteen IBMYP teachers in this study demonstrated a genuine passion for teaching through delivery of instruction and positive attitude about material being presented during the observation.

IB1 required students to take ownership and responsibility for their work submitted, as well as, used positive words such as: right on, good job, great, and good answer. IB3 used humor and laughed with students during instructional time. IB4 challenged students to provide understanding of the material presented by asking them to explain their answer to the class. IB6 expected all students to participate in the lesson. IB8 demonstrated enthusiasm and students were excited about being in class by smiling and laughing with the teacher. IB11 had a classroom discussion about likes/dislikes, as well as, students were engaged during the entire lesson. IB17 worked with each student with fairness and respect. The level ratings for personal qualities of IBMYP teachers, as well as, mean and standard deviation can be found in Table 27.
Table 27

*Level Ratings on Personal Qualities of IBMYP Teachers*

<table>
<thead>
<tr>
<th>IBMYP Teacher</th>
<th>P-1 Level Rating</th>
<th>P-2 Level Rating</th>
<th>P-3 Level Rating</th>
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</table>

The mean and standard deviation of participants from both groups were compared and analyzed to determine the p-value and statistical significance of personal qualities for IBMYP teachers compared to traditional teachers. The mean and standard deviation of IBMYP teachers’ quality of caring in this study were 3.40 and 0.60. The mean and
standard deviation of traditional middle school teachers' quality of caring in this study were 3.15 and 0.81. The standard error of difference equaled 0.23. The t-value equaled 1.11, resulting in p=0.27, a non-significant difference (p<.05) in the quality of caring for International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers. The t-Test table for caring can be found in Table 28.

Table 28

<table>
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<th>t</th>
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</tbody>
</table>

The mean and standard deviation of IBMYP teachers' quality of fairness and respect in this study were 3.60 and 0.68. The mean and standard deviation of traditional middle school teachers' quality of fairness and respect in this study were 3.35 and 0.81. The standard error of difference equaled 0.24. The t-value equaled 1.05, resulting in p=0.30, a non-significant difference (p<.05) in the quality of fairness and respect for International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers. The t-Test table for fairness and respect can be found in Table 29.
Table 29

_t-Test for Fairness and Respect_

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</tbody>
</table>

The mean and standard deviation of IBMYP teachers’ establishment of positive relationships in this study were 3.55 and 0.69. The mean and standard deviation of traditional middle school teachers’ establishment of positive in this study were 3.15 and 0.81. The standard error of difference equaled 0.24. The t-value equaled 1.68, resulting in p=0.10, a non-significant difference (p<.05) in the establishment of positive relationships for International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers. The t-Test table for positive relationships can be found in Table 30.

Table 30

_t-Test for Positive Relationships_

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>DF</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBMYP Teachers</td>
<td>20</td>
<td>3.55</td>
<td>0.69</td>
<td>1.68</td>
<td>38</td>
<td>0.10</td>
</tr>
<tr>
<td>Traditional Teachers</td>
<td>20</td>
<td>3.15</td>
<td>0.81</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The mean and standard deviation of IBMYP teachers’ encouragement of responsibility in this study were 3.70 and 0.57. The mean and standard deviation of
traditional middle school teachers’ encouragement of responsibility in this study were 2.95 and 0.83. The standard error of difference equaled 0.22. The t-value equaled 3.34, resulting in p=0.002, a significant difference (p<.05) in the encouragement of responsibility for International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers. The t-Test table for encouragement of responsibility can be found in Table 31.

Table 31

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>DF</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBMYP Teachers</td>
<td>20</td>
<td>3.70</td>
<td>0.57</td>
<td>3.34</td>
<td>38</td>
<td>0.002</td>
</tr>
<tr>
<td>Traditional Teachers</td>
<td>20</td>
<td>2.95</td>
<td>0.83</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The mean and standard deviation of IBMYP teachers’ enthusiasm in this study were 3.45 and 0.60. The mean and standard deviation of traditional middle school teachers’ enthusiasm in this study were 3.25 and 0.72. The standard error of difference equaled 0.21. The t-value equaled 0.95, resulting in p=0.35, a non-significant difference (p<.05) in enthusiasm of International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers. The t-Test table for enthusiasm can be found in Table 32.
Table 32

\textit{t-Test for Enthusiasm}

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
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<th>p</th>
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</thead>
<tbody>
<tr>
<td>IBMYP Teachers</td>
<td>20</td>
<td>3.45</td>
<td>0.60</td>
<td>0.95</td>
<td>38</td>
<td>0.35</td>
</tr>
<tr>
<td>Traditional Teachers</td>
<td>20</td>
<td>3.25</td>
<td>0.72</td>
<td></td>
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</tr>
</tbody>
</table>

Results of Research Question 5

\textit{Research Question 5:} Is there a significant difference (p. < .05) in the degree to which teachers of International Baccalaureate Middle Years Programme students self-report their Teacher Efficacy beliefs in comparison with traditional middle school teachers in a large urban district?

\textit{Procedure}

The researcher sent an online version of Tschannen-Moran & Hoy's (2001) twenty-four item Teachers' Sense of Efficacy Scale to all randomly selected participants via email. Forty participants received the TSES online questionnaire; however, only thirty-four of the participants completed the questionnaire. Specifically, 18 IBMYP and 16 traditional teachers completed the questionnaire. The participants responded to the Likert scale which consisted of nine choices ranging from nothing to a great deal. Tschannen-Moran and Hoy's \textit{TSES} can be found in Figure 3. Seven out of the 34 respondents omitted at least one question with a total of ten omitted items:

- 6 questionnaires with one item omitted: items #13, #17, #18, #21, and #23
- 1 questionnaire with five items omitted: items #1 - #4, and #13
### Figure 3. TSES 24-item questionnaire.

<table>
<thead>
<tr>
<th>Teacher Beliefs</th>
<th>Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How much can you do to get through to the most difficult students?</td>
<td>0 0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>2. How much can you do to help your students think critically?</td>
<td>0 0 0 1 2 3 4 5 6 7 8</td>
</tr>
<tr>
<td>3. How much can you do to control disruptive behavior in the classroom?</td>
<td>0 0 0 1 2 3 4 5 6 7 8</td>
</tr>
<tr>
<td>4. How much can you do to motivate students who show low interest in school work?</td>
<td>0 0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>5. To what extent can you make your expectations clear about student behavior?</td>
<td>0 0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>6. How much can you do to get students to believe they can do well in school work?</td>
<td>0 0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>7. How well can you respond to difficult questions from your students?</td>
<td>0 0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>8. How well can you establish routines to keep activities running smoothly?</td>
<td>0 0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>9. How much can you do to help your students value learning?</td>
<td>0 0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>10. How much can you gauge student comprehension of what you have taught?</td>
<td>0 0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>11. To what extent can you craft good questions for your students?</td>
<td>0 0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>12. How much can you do to foster student creativity?</td>
<td>0 0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>13. How much can you do to get children to follow classroom rules?</td>
<td>0 0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>14. How much can you do to improve the understanding of a student who is failing?</td>
<td>0 0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>15. How much can you do to calm a student who is disruptive or noisy?</td>
<td>0 0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>16. How well can you establish a classroom management system with each group of students?</td>
<td>0 0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>17. How much can you do to adjust your lessons to the proper level for individual students?</td>
<td>0 0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>18. How much can you use a variety of assessment strategies?</td>
<td>0 0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>19. How well can you keep a few problem students from ruining an entire lesson?</td>
<td>0 0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>20. To what extent can you provide an alternative explanation or example when students are confused?</td>
<td>0 0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>21. How well can you respond to defiant students?</td>
<td>0 0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>22. How much can you assist families in helping their children do well in school?</td>
<td>0 0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>23. How well can you implement alternative strategies in your classroom?</td>
<td>0 0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>24. How well can you provide appropriate challenges for very capable students?</td>
<td>0 0 1 2 3 4 5 6 7 8 9</td>
</tr>
</tbody>
</table>

Developers: Megan Tschannen-Moran, College of William and Mary
Anita Woolfolk Hoy, the Ohio State University, 2001.

Tschannen-Moran and Hoy established three subscale groupings: efficacy of student engagement, efficacy of instructional strategies, and efficacy of classroom management.

The questions that are grouped to identify each subscale of the TSES are provided in Table 33. The responses to each of the items will be discussed in this section.
Table 33

Tschannen-Moran and Hoy (2001) Teachers’ Sense of Efficacy Subscale Groupings

<table>
<thead>
<tr>
<th>Efficacy Subscale</th>
<th>Questionnaire Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficacy for Student Engagement</td>
<td>1, 2, 4, 6, 9, 12, 14, 22</td>
</tr>
<tr>
<td>Efficacy for Instructional Practices</td>
<td>7, 10, 11, 17, 18, 20, 23, 24</td>
</tr>
<tr>
<td>Efficacy for Classroom Management</td>
<td>3, 5, 8, 13, 15, 16, 19, 21</td>
</tr>
</tbody>
</table>

Adapted from Tschannen-Moran and Hoy (2001)

Efficacy for Student Engagement of Traditional Teachers

A total of 16 traditional teachers responded to items regarding efficacy for student engagement. One of the 16 respondents omitted three items and there were a total of 125 responses out of 128 completed with a response rate of 98%. Using the rating scale for item #1: one respondent omitted, one respondent answered 4, two respondents answered 6, five respondents answered 7 (Quite A Bit), two respondents answered 8, and five respondents answered 9 (A Great Deal). Using the rating scale for item #2: one respondent omitted, eight respondents answered 7 (Quite A Bit), three respondents answered 8, and four respondents answered 9 (A Great Deal). Using the rating scale for item #4: one respondent omitted, one respondent answered 5 (Some Degree), three respondents answered 6, eight respondents answered 7 (Quite A Bit), one respondent answered 8, and two respondents answered 9 (A Great Deal).

Using the rating scale for item #6: one respondent answered 6, five respondents answered 7 (Quite A Bit), three respondents answered 8, seven respondents answered 9 (A Great Deal). Using the rating scale for item #9: one respondent answered 5 (Some Degree), three respondents answered 6, eight respondents answered 7 (Quite A Bit), one respondent answered 8, and two respondents answered 9 (A Great Deal).
Degree), three respondents answered 6, three respondents answered 7 (Quite A Bit), two respondents answered 8, and seven respondents answered 9 (A Great Deal). Using the rating scale for item #12: two respondents answered 5 (Some Degree), three respondents answered 6, one respondent answered 7 (Quite A Bit), six respondents answered 8, and four respondents answered 9 (A Great Deal). Using the rating scale for item #14: one respondent answered 5 (Some Degree), four respondents answered 6, six respondents answered 7 (Quite A Bit), two respondents answered 8, and three respondents answered 9 (A Great Deal). Using the rating scale for item #22: one respondent answered 5 (Some Degree), two respondents answered 6, nine respondents answered 7 (Quite A Bit), and four respondents answered 8. All responses of traditional teachers in this study can be found in Appendix D.

**Efficacy for Student Engagement of IBMYP Teachers**

A total of 18 IBMYP teachers responded to items regarding efficacy for student engagement. There were a total of 144 responses out of 144 completed with a response rate of 100%. Using the rating scale for item #1: one respondent answered 3 (Very Little), one respondent answered 5 (Some Degree), one respondent answered 6, seven respondents answered 7 (Quite A Bit), two respondents answered 8, and six respondents answered 9 (A Great Deal). Using the rating scale for item #2: one respondent answered 5 (Some Degree), two respondents answered 6, seven respondents answered 7 (Quite A Bit), five respondents answered 8, and three respondents answered 9 (A Great Deal). Using the rating scale for item #4: three respondents answered 5 (Some Degree), two
respondents answered 6, four respondents answered 7 (Quite A Bit), eight respondents answered 8, one respondent answered 9 (A Great Deal).

Using the rating scale for item #6: two respondents answered 6, seven respondents answered 7 (Quite A Bit), two respondents answered 8, seven respondents answered 9 (A Great Deal). Using the rating scale for item #9: two respondents answered 5 (Some Degree), three respondents answered 6, five respondents answered 7 (Quite A Bit), two respondents answered 8, and six respondents answered 9 (A Great Deal). Using the rating scale for item #12: two respondents answered 5 (Some Degree), three respondents answered 6, four respondents answered 7 (Quite A Bit), eight respondents answered 8, and one respondent answered 9 (A Great Deal). Using the rating scale for item #14: one respondent answered 4, two respondents answered 5 (Some Degree), five respondents answered 6, six respondents answered 7 (Quite A Bit), three respondents answered 8, and one respondent answered 9 (A Great Deal). Using the rating scale for item #22: one respondent answered 3 (Very Little), two respondents answered 5 (Some Degree), five respondents answered 6, six respondents answered 7 (Quite A Bit), two respondents answered 8, and two respondents answered 9 (A Great Deal). All responses of IBMYP teachers in this study can be found in Appendix D.

Efficacy for Instructional Practices of Traditional Teachers

A total of 16 traditional teachers responded to items regarding efficacy for instructional practices. One of the 16 respondents omitted one item and there were a total of 127 responses out of 128 completed with a response rate of 99%. Using the rating scale for item #7: seven respondents answered 7 (Quite A Bit), five respondents answered
8, four respondents answered 9 (A Great Deal). Using the rating scale for item #10: one respondent answered 6, four respondents answered 7 (Quite A Bit), three respondents answered 8, and eight respondents answered 9 (A Great Deal). Using the rating scale for item #11: two respondents answered 6, seven respondents answered 7 (Quite A Bit), four respondents answered 8, and three respondents answered 9 (A Great Deal).

Using the rating scale for item #17: one respondent answered 5 (Some Degree), three respondents answered 6, three respondents answered 7 (Quite A Bit), three respondents answered 8, and six respondents answered 9 (A Great Deal). Using the rating scale for item #18: one respondent answered 6, five respondents answered 7 (Quite A Bit), four respondents answered 8, six respondents answered 9 (A Great Deal). Using the rating scale for item #20: one respondent answered 6, five respondents answered 7 (Quite A Bit), five respondents answered 8, and five respondents answered 9 (A Great Deal). Using the rating scale for item #23: one respondent omitted, two respondents answered 6, three respondents answered 7 (Quite A Bit), six respondents answered 8, and four respondents answered 9 (A Great Deal). Using the rating scale for item #24: one respondent answered 5 (Some Degree), three respondents answered 6, three respondents answered 7 (Quite A Bit), four respondents answered 8, and five respondents answered 9 (A Great Deal). All responses of traditional teachers in this study can be found in Appendix D.

Efficacy for Instructional Practices of IBMYP Teachers

A total of 18 IBMYP teachers responded to items regarding efficacy for instructional practices. Two respondents omitted 1 item and there were a total of 142
responses out of 144 completed with a response rate of 99%. Using the rating scale for item #7: six respondents answered 7 (Quite A Bit), five respondents answered 8, and seven respondents answered 9 (A Great Deal). Using the rating scale for item #10: two respondents answered 6, four respondents answered 7 (Quite A Bit), six respondents answered 8, and six respondents answered 9 (A Great Deal). Using the rating scale for item #11: one respondent answered 5 (Some Degree), two respondents answered 6, five respondents answered 7 (Quite A Bit), five respondents answered 8, and five respondents answered 9 (A Great Deal). Using the rating scale for item #17: one respondent omitted, one respondent answered 4, one respondent answered 6, six respondents answered 7 (Quite A Bit), two respondents answered 8, and seven respondents answered 9 (A Great Deal).

Using the rating scale for item #18: one respondent omitted, one respondent answered 5 (Some Degree), one respondent answered 6, eight respondents answered 7 (Quite A Bit), three respondents answered 8, and four respondents answered 9 (A Great Deal). Using the rating scale for item #20: four respondents answered 7 (Quite A Bit), five respondents answered 8, and nine respondents answered 9 (A Great Deal). Using the rating scale for item #23: two respondents answered 5 (Some Degree), three respondents answered 6, seven respondents answered 7 (Quite A Bit), three respondents answered 8, and three respondents answered 9 (A Great Deal). Using the rating scale for item #24: two respondents answered 6, two respondents answered 7 (Quite A Bit), seven respondents answered 8, and seven respondents answered 9 (A Great Deal). All responses of IBMYP teachers in this study can be found in Appendix E.
Efficacy for Classroom Management of Traditional Teachers

A total of 16 traditional teachers responded to items regarding efficacy for classroom management. Two of the 16 respondents omitted one item and one respondent omitted two items. There were a total of 124 responses out of 128 completed with a response rate of 97%. Using the rating scale for item #3: one respondent omitted, seven respondents answered 8, eight respondents answered 9 (A Great Deal). Using the rating scale for item #5: three respondents answered 7 (Quite A Bit), one respondent answered 8, and twelve respondents answered 9 (A Great Deal). Using the rating scale for item #8: one respondent answered 6, three respondents answered 7 (Quite A Bit), one respondent answered 8, and eleven respondents answered 9 (A Great Deal). Using the rating scale for item #13: two respondents omitted, three respondents answered 7 (Quite A Bit), five respondents answered 8, and six respondents answered 9 (A Great Deal).

Using the rating scale for item #15: one respondent answered 5 (Some Degree), two respondents answered 6, five respondents answered 7 (Quite A Bit), two respondents answered 8, and six respondents answered 9 (A Great Deal). Using the rating scale for item #16: one respondent answered 5 (Some Degree), one respondent answered 6, two respondents answered 7 (Quite A Bit), four respondents answered 8, and eight respondents answered 9 (A Great Deal). Using the rating scale for item #19: one respondent answered 4, one respondent answered 6, four respondents answered 7 (Quite A Bit), three respondents answered 8, and seven respondents answered 9 (A Great Deal). Using the rating scale for item #21: one respondent omitted, one respondent answered 4, one respondent answered 5 (Some Degree), one respondent answered 6, four respondents
answered 7 (Quite A Bit), four respondents answered 8, and four respondents answered 9 (A Great Deal). All responses of traditional teachers in this study can be found in Appendix E.

**Efficacy for Classroom Management of IBMYP Teachers**

A total of 18 IBMYP teachers responded to items regarding efficacy for classroom management. One respondent omitted 1 item and there were a total of 143 responses out of 144 completed with a response rate of 99%. Using the rating scale for item #3: two respondents answered 5 (Some Degree), six respondents answered 7 (Quite A Bit), one respondent answered 8, and nine respondents answered 9 (A Great Deal). Using the rating scale for item #5: two respondents answered 5 (Some Degree), one respondent answered 7 (Quite A Bit), three respondents answered 8, and twelve respondents answered 9 (A Great Deal). Using the rating scale for item #8: one respondent answered 5 (Some Degree), five respondents answered 7 (Quite A Bit), one respondent answered 8, and eleven respondents answered 9 (A Great Deal). Using the rating scale for item #13: one respondent omitted, one respondent answered 3 (Very Little), one respondent answered 5 (Some Degree), two respondents answered 6, four respondents answered 7 (Quite A Bit), four respondents answered 8, and five respondents answered 9 (A Great Deal).

Using the rating scale for item #15: one respondent answered 3 (Very Little), one respondent answered 5 (Some Degree), three respondents answered 6, five respondents answered 7 (Quite A Bit), seven respondents answered 8, and one respondent answered 9 (A Great Deal). Using the rating scale for item #16: one respondent answered 3 (Very
Little), one respondent answered 5 (Some Degree), one respondent answered 6, three respondents answered 7 (Quite A Bit), four respondents answered 8, and eight respondents answered 9 (A Great Deal). Using the rating scale for item #19: one respondent answered 3 (Very Little), one respondent answered 5 (Some Degree), seven respondents answered 7 (Quite A Bit), six respondents answered 8, and three respondents answered 9 (A Great Deal). Using the rating scale for item #21: three respondents answered 5 (Some Degree), two respondents answered 6, four respondents answered 7 (Quite A Bit), three respondents answered 8, and six respondents answered 9 (A Great Deal). All responses of IBMYP teachers in this study can be found in Appendix E.

The mean and standard deviation of participants from both groups were compared and analyzed to determine the p-value and statistical significance of efficacy for student engagement for IBMYP teachers compared to traditional teachers. There were a total of 8 (n=8) questions to determine efficacy for student engagement. The mean and standard deviation of IBMYP teachers' efficacy for student engagement in this study were 7.19 and 0.42. The mean and standard deviation of traditional middle school teachers in this study were 7.43 and 0.37. The standard error of difference equaled 0.20. The t-value equaled 1.21, resulting in p=0.25, a non-significant difference (p<.05) in efficacy for student engagement of International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers. The t-Test table for efficacy for student engagement can be found in Table 34.
Table 34

*t-Test for Efficacy for Student Engagement*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>DF</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBMYP Teachers</td>
<td>20</td>
<td>7.18</td>
<td>0.42</td>
<td>1.21</td>
<td>14</td>
<td>0.25</td>
</tr>
<tr>
<td>Traditional Teachers</td>
<td>20</td>
<td>7.45</td>
<td>0.37</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The mean and standard deviation of participants from both groups were compared and analyzed to determine the p-value and statistical significance of efficacy for instructional practices for IBMYP teachers compared to traditional teachers. There were a total of 8 (n=8) questions to determine efficacy for instructional practices. The mean and standard deviation of IBMYP teachers’ efficacy for instructional practices in this study were 7.79 and 0.39. The mean and standard deviation of traditional middle school teachers in this study were 7.78 and 0.20. The standard error of difference equaled 0.16. The t-value equaled 0.08, resulting in p=0.94, a non-significant difference (p<.05) in efficacy for instructional practices of International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers. The t-Test table for efficacy for instructional practices can be found in Table 35.

Table 35

*t-Test for Efficacy for Instructional Practices*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>DF</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBMYP Teachers</td>
<td>20</td>
<td>7.79</td>
<td>0.39</td>
<td>0.08</td>
<td>14</td>
<td>0.94</td>
</tr>
<tr>
<td>Traditional Teachers</td>
<td>20</td>
<td>7.78</td>
<td>0.20</td>
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</tbody>
</table>
The mean and standard deviation of participants from both groups were compared and analyzed to determine the p-value and statistical significance of efficacy for classroom management for IBMYP teachers compared to traditional teachers. There were a total of 8 (n=8) questions to determine efficacy for classroom management. The mean and standard deviation of IBMYP teachers' efficacy for classroom management in this study were 7.64 and 0.45. The mean and standard deviation of traditional middle school teachers in this study were 8.08 and 0.44. The t-value equaled 1.97, resulting in p=0.07, a non-significant difference (p<.05) in efficacy for classroom management of International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers. The t-Test table for efficacy for classroom management can be found in Table 36.

Table 36

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>DF</th>
<th>p</th>
</tr>
</thead>
<tbody>
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<td>IBMYP Teachers</td>
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<td>7.64</td>
<td>0.45</td>
<td>1.97</td>
<td>14</td>
<td>0.07</td>
</tr>
<tr>
<td>Traditional Teachers</td>
<td>20</td>
<td>8.08</td>
<td>0.44</td>
<td></td>
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</tr>
</tbody>
</table>
Chapter 5 – Findings, Discussion, Conclusions, and Recommendations

This study compared the teaching practices and efficacy beliefs of 20 traditional middle school teachers and 20 International Baccalaureate Middle Years Programme (IBMYP) teachers in an urban school district using the framework of Stronge’s Model of Effective Teaching (2007), Stronge and Tucker’s (2003) *Teacher Effectiveness Behavior Scale*, and Tschannen-Moran & Hoy’s (2001) *Teacher’s Sense of Efficacy Scale*. Recommended practices for effective teaching were extracted from the following four categories of Stronge’s (2007) Model of Teacher Effectiveness: classroom management and organization, implementing instruction, monitoring student progress, and Teacher as a Person.

Research Questions and Findings

The following research questions were analyzed and these findings on teaching practices and efficacy beliefs were discovered during this study:

*Research Question 1 and Findings*

Is there a significant difference (p. <.05) in the degree to which International Baccalaureate Middle Years Programme teachers exhibit characteristics of effective classroom management and organization skills compared to traditional middle school teachers in a large urban school district?

- There was a significant difference (p=.05) in classroom management skills of International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers.
• There was not a significant difference (p<.05) in classroom organization skills of International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers.

• IBMYP in this study used more effective organizational strategies to maintain momentum and variety than traditional teachers.

• IBMYP and traditional teachers in this study organized and/or incorporated tasks, materials, and space to facilitate learning by students.

• IBMYP and traditional teachers in this study had smooth transitions and provided a classroom environment that supported ongoing instruction with minimal interruptions.

Research Question 2 and Findings

Is there a significant difference (p <.05) in the degree to which International Baccalaureate Middle Years Programme teachers exhibit effective instructional strategies in their teaching compared to traditional middle school teachers in a large urban school district?

• There was a significant difference (p<.05) in instructional differentiation of International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers.

• There was not a significant difference (p<.05) in instructional focus of learning, instructional clarity, instructional complexity, expectations for student learning, and use of technology of International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers.
• IBMYP teachers in this study used more instructional strategies that differentiated instruction for individual students than traditional teachers.

• IBMYP and traditional teachers in this study maximized time on task and focused on instruction.

• IBMYP and traditional teachers in this study communicated effectively with their students and provided examples to provide a better understanding of the material presented.

• IBMYP and traditional teachers in this study provided opportunities for students to utilize their higher order thinking skills.

• IBMYP and traditional teachers in this study consistently encouraged their students to take responsibility of their learning.

• There were limited technology resources in the large urban district; however, both IBMYP and traditional teachers used technology when available.

Research Question 3 and Findings

Is there a significant difference (p. <.05) in the degree to which International Baccalaureate Middle Years Programme teachers effectively use assessment practices to monitor student progress compared to traditional middle school teachers in a large urban district?

• There was a significant difference (p<.05) in assessment for understanding of International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers.
• There was not a significant difference (p<.05) in the quality of verbal feedback to students from International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers.

• IBMYP teachers more regularly check for understanding and monitor student learning through a variety of methods (presentations, group work, student led discussion, and questioning) than traditional teachers in this study.

• IBMYP and traditional teachers provided verbal feedback and addressed students’ areas of strength/weakness in this study.

Research Question 4 and Findings

Is there a significant difference (p. <.05) in the degree to which teachers of International Baccalaureate Middle Years Programme students exhibit selected personal dispositions in their classroom teaching in comparison with traditional middle school teachers in a large urban district?

• There was a significant difference (p<.05) in encouragement of responsibility for International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers.

• There was not a significant difference (p<.05) in caring, fairness and respect, positive relationships, and enthusiasm for International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers.

• IBMYP and traditional teachers demonstrated commitment toward their students in a caring manner in this study.
• IBMYP and traditional teachers demonstrated fairness and respect towards students in this study.

• IBMYP and traditional teachers in this study modeled and nurtured supportive relationships with students.

• IBMYP encouraged students to take responsibility of their learning more than traditional teachers.

• IBMYP and traditional teachers were enthusiastic and passionate about teaching which provided students with enjoyment of learning in this study.

Research Question 5 and Findings

Is there a significant difference (p. <.05) in the degree to which teachers of International Baccalaureate Middle Years Programme students self-report their Teacher Efficacy beliefs in comparison with traditional middle school teachers in a large urban district?

• There was not a significant difference (p<.05) in efficacy for student engagement of International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers.

• There was not a significant difference (p<.05) in efficacy for instructional practices of International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers.

• There was not a significant difference (p<.05) in efficacy for classroom management of International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers.
• IBMYP and traditional teachers’ averages of responses on efficacy for instructional practices using the TSES was equal.

Discussion

This study focused on teaching practices and efficacy beliefs of International Baccalaureate Middle Years Programme and traditional middle school teachers in a large urban district. Teaching practices and efficacy beliefs of both groups were compared and analyzed to determine if there was a significant difference (p < .05) for IBMYP teachers in comparison to traditional middle school teachers. Stronge’s Model of Effective Teaching (2007) was the framework for this study. Stronge and Tucker’s (2003) Teacher Effectiveness Behavior Scale and Tschannen-Moran & Hoy’s (2001) Teacher’s Sense of Efficacy Scale were the instruments used to determine effective teaching practices and efficacy beliefs of IBMYP and traditional middle school teachers.

Teaching practices of the participants in this study were rated with a score 1-least effective to 4-most effective using the Teacher Effectiveness Behavior Scale rubric and classroom observations. Efficacy beliefs of the participants were self reported using the Teachers’ Sense of Efficacy rating scale ranging from 1-None at all to 9-A Great Deal. The total observation sample comprised of 40 (n=40) teachers of 43 teachers which gave a total response rate of 93%. The total number of online TSES questionnaires completed by both groups totaled 34 (n=34) of the 40 potential participants which resulted in a response rate of 85%.

This study identified teaching practices and efficacy beliefs of International Baccalaureate Middle Years Programme teachers in a large urban school district.
Overall, the data collected from classroom observations identified a statistically significant difference for IBMYP and traditional teachers in regards to instructional differentiation, encouragement of responsibility, assessment for learning, and classroom management. A t-Test was conducted to determine if the means of the two groups were statistically different from each other.

Results in this study from the t-Test determined a statistical difference (p<.05) between International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers in the following areas: instructional differentiation, assessment for understanding, classroom management, and encouragement of responsibility. Results in this study from the t-Test determined no statistical difference (p<.05) between International Baccalaureate Middle Years Programme teachers compared to traditional middle school teachers in the following areas: focus on learning, instructional clarity, instructional complexity, expectations for student learning, use of technology, quality of verbal feedback to students, classroom organization, caring, fairness and respect, positive relationships, and enthusiasm.

*Instructional Strategies*

An effective teacher maintains and communicates a focus on instruction, demonstrates high expectations for students, allocates time effectively, and engages in effective planning (Stronge & Tucker, 2003). The data obtained through classroom observations on instructional strategies of IBMYP and traditional teachers using the TEBS supported research question 2. The pedagogy of IBMYP teachers consists of the following instructional strategies: differentiation, scaffolding, experiential learning,
inquiry based instruction, cooperative learning, student-centered, and constructivism (IBO, 2010).

The establishment of daily routines, diverse instructional practices, and monitoring student learning allows students to be engaged in the learning process (Marzano, Marzano, & Pickering, 2003). The IBMYP teachers in this study incorporated different types of instructional strategies such as questioning, guided practice, independent practice, read aloud, student presentations, class discussion, and hands-on activities. The IBO training that the IBMYP teachers in this study received focused on differentiation of instruction and may have lead to the significant difference of IBMYP and traditional teachers.

Differentiated instruction provides all students opportunities to learn; however, teachers must be sure to provide appropriate instruction for each ability group to increase academic achievement (Education Review Office, 1998; Kulik & Kulik, 1992). The mean values for instructional focus on learning of IBMYP and traditional teachers did not have a statistically significant difference. Both IBMYP and traditional teachers in this study tended to maximize their class time with a focus on learning and minimal interruptions. Traditional teachers in this study provided a similar focus on learning; however, there were more IBMYP teachers who performed at level 3 and 4 of Stronge and Tucker’s (2003) Teacher Effectiveness Behavior Scale.

Communication in an effective classroom involves teacher-student, student-teacher, and student to student communication channels (Stronge, 2007). Both traditional and IBMYP teachers in this study provided instructional examples for their students to
grasp a better understanding of the content presented. However, IBMYP classrooms are student-centered and teachers facilitate instruction (IBO, 2010) which provided some of the IBMYP teachers in this study more opportunities to better serve students. The mean values of IBMYP and traditional did not have a statistically significant difference for instructional clarity. Effective teachers must encourage student engagement and participation, as well as, ask higher order thinking questions (Ford & Trotman, 2001; Henderson, 1996; Hansen & Feldhusen, 1994; Silverman, 1995). IBO training provides IBMYP teachers with additional ways to communicate with students through instructional examples. IBMYP teachers in this study have received IBO training within the past three years which may have contributed to IBMYP teachers having a better understanding of using instructional examples.

In order for a teacher to communicate with his/her students effectively, he/she must possess a deep understanding of the content being taught and deliver instruction in a way that empowers students to take ownership in the material presented (Education Review Office, 1998; Rowan, Chiang, & Miller, 1997). IBMYP and traditional teachers in this study provided learning activities that required higher order thinking skills. The MYP curriculum focuses on higher order thinking and provides IBMYP students with opportunities to participate in learning activities that improve these skills. Also, IBMYP teachers are required to establish questions that allow students to ask themselves why they are learning specific material and draw on content from educational cultures from around the world (IBO, 2010). The philosophy of the IBMYP and practices of IBMYP
teachers provided more complexity in instruction compared to traditional teachers in this study.

Personal Qualities

Affective characteristics such as a positive outlook on work, good teacher-student relationship, and love for students can contribute to a teacher’s happiness which promotes a positive classroom climate and increases a student’s academic progress (Noddings, 2005; Stronge, 2007). This study evaluated teaching behaviors focusing on the following personal qualities of Stronge and Tucker’s (2003) *Teacher Effectiveness Behavior Scale*: caring, fairness and respect, positive relationships, encouragement of responsibility, and enthusiasm. Both traditional and IBMYP teachers in this study demonstrated personal qualities that had a positive impact on instruction and student learning. There was not a statistically significant difference (p<.05) in the degree to which teachers of International Baccalaureate Middle Years Programme students exhibit selected personal dispositions in their classroom teaching in comparison with traditional middle school teachers in all areas except for encouragement of responsibility.

IBMYP teachers provide student-centered classrooms and facilitate instruction in the classroom to allow students to take full responsibility for learning (IBO, 2010). IBMYP and traditional teachers had a statistically significant difference in their mean values for encouragement of responsibility. IBO programmes focus on students’ taking full responsibility for their learning through holistic education (IBO, 2010). It is evident that IBMYP teachers in this study set higher expectations for their students and provided more opportunities for students to take full ownership of their learning. However,
IBMYP and traditional had no statistically significant differences (p<.05) in the following personal qualities of IBMYP teachers in comparison to traditional teachers in this study: caring, fairness and respect, positive relationships, and enthusiasm.

Assessment Practices

According to Stronge (2007), effective teachers must understand and enforce the following components: homework, meaningful verbal feedback, and use assessment information to meet students’ needs. The IBO requires IBMYP teachers to use varied assessments that include: open-ended questions, problem solving activities, investigations, organized debates, hands-on experimentation, analysis, and reflection (IBO, 2010). Due to these requirements, the IBMYP teachers in this study utilized different forms of assessment to monitor student learning. The data obtained through classroom observations on assessment practices of IBMYP and traditional teachers using the TEBS identified a statistically significant difference of their mean values.

Furthermore, the IBMYP’s framework encompasses an assessment portion that uses both qualitative and quantitative assessments, as well as, peer and self assessment techniques. Qualitative and quantitative assessments were not observed during the observations in this study; however, IBO requires IBMYP schools to incorporate an assessment policy in order to maintain their authorization. IBMYP teachers select appropriate tasks and assessment tools (oral, written, or practical work) that are available within the school or district, related to subjects being taught, and/or aligned with objectives that are being measured (IBO, 2010). The components of the IBMYP
curriculum had an effect on assessment for understanding of IBMYP teachers in this study.

*Classroom Management and Organization*

Classroom management and organization is one of the most important components of effective teaching. An effective teacher cannot provide his/her students with a quality education without possessing classroom management and organization skills. According to Stronge (2007), the following components are needed to be an effective teacher: classroom management, organization, and discipline. The term management is defined by Doyle (1987) as “the actions and strategies teachers use to solve the problem of order in classrooms” (p.397). The data obtained from observations and self reported *TSES* questionnaires on classroom management skills of IBMYP and traditional teachers in this study identified a statistically significant difference for research question 1.

It is apparent that both IBMYP and traditional teachers in this study possess skills needed to manage their classrooms; however, IBMYP teachers provided more effective management strategies to maintain momentum and variety. IBMYP teachers are responsible for providing a classroom environment where students act with integrity and honesty, as well as, take full responsibility for their actions and the consequences that accompany those actions (IBO, 2010). Also, IBMYP teachers provide more opportunities for students to facilitate their own learning and differentiation strategies are incorporated into the lesson which provide more instructional focus and decreases
classroom management issues. IBMYP classrooms in this study experienced less classroom management issues than traditional classrooms.

IBMYP teachers in this study possessed outstanding classroom management skills. All IBMYP teachers in this study received category II training from the IBO which focused on instructional skills and assessment practices. This focus on instruction and assessment provided IBMYP teachers with the skills to keep students focused and engaged in the lesson presented. In turn, the students were on task and had limited to distract themselves or each other. It is speculated that IBO category II training will provide teachers with adequate skills to decrease classroom management issues.

*Teachers’ Sense of Efficacy*

Classroom management, learning environment, and teaching practices are influenced by the level of teacher efficacy (Tschannen-Moran, Woolfolk, Hoy, & Hoy, 1998). This study used Tschannen-Moran & Hoy (2001) *Teachers’ Sense of Efficacy Scale* to measure efficacy levels for the following subscales: student engagement, instructional practices, and classroom management. The data derived from the online TSES questionnaire did not support research question 5. There was no significant difference (p<.05) in the degree to which teachers of International Baccalaureate Middle Years Programme students self-reported their teacher efficacy beliefs in comparison with traditional middle school teachers in this study.

Both IBMYP and traditional teachers had strong beliefs in efficacy of student engagement in this study. IBMYP and traditional teachers self-reported strong beliefs in efficacy of instructional practices with no statistically significant difference between their
mean values. Also, there was no significant difference between IBMYP and traditional teachers for efficacy of classroom management.

A teacher with a strong sense of efficacy establishes a learning environment where time on task is embraced, guidance is provided to students with challenges, and a reward system is established for academic achievement (Allinder, 1994). Both IBMYP and traditional teachers in this study had a strong belief in their ability to motivate students and increase student achievement. Both IBMYP and traditional teachers in this study had a strong efficacy for student engagement, instructional practices, and classroom management; however, through classroom observations some of the same teachers did not implement effective practices in their classrooms. Since the TSES was self reported by the participants in this study, their responses to the 24-item questionnaire is solely based on their perspective and does not necessarily indicate their actual behaviors in the classroom.

**Practical Implications**

IBMYP and traditional teachers in this study had statistically significant differences in their mean values for instructional differentiation, encouragement of responsibility, assessment for understanding, and classroom management. These statistically significant differences were due to the philosophy, training, and beliefs of the International Baccalaureate Organization’s Middle Years Programme. The philosophy of IB embraces intercultural awareness, holistic learning, and effective communication through the curriculum framework (IBO, 2010). IBMYP teachers in this study truly believed that all students must take responsibility for their own learning. All of these
factors in relation to instruction, assessment, and student responsibility provide a
classroom with limited classroom management deficiencies.

IBMYP teachers in this study received IBO category II training within the past three years. Category II training exposed IBMYP teachers to effective research based strategies that enhanced instructional and assessment practices. IBMYP teachers are responsible for organizing continuous assessment using a specific assessment criterion (IBO, 2010). Furthermore, IBMYP teachers use the following types of assessment tools: oral work, written work, and practical work (IBO, 2010). These assessment tools provide opportunities for students to be assessed for understanding the objectives that are outlined by the teacher.

The mission of the IBO is as follows: 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. To this end the organization works with schools, governments and international organizations to develop challenging programmes of international education and rigorous assessment. These programmes encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right (IBO, 2010). The IBO mission is the educational foundation of IBMYP teachers and drives their instruction. Furthermore, IBMYP teachers in this study have embraced the philosophy of the IBO which empowered them to provide student centered classrooms and encourage all students to take responsibility for their learning.
Recommendations for Future Research

Recommendation 1

This study analyzed teaching practices and efficacy beliefs of IBMYP and traditional teachers in a large urban school district in the United States of America. A study that examines these practices and beliefs of IBMYP teachers and traditional teachers in another country would provide more validity to this study. The framework would remain the same; however, the sample population would need to have an equivalent criterion for teacher selection.

Recommendation 2

The student demographics and sample of teachers were diverse in this study. A study that examined teaching practices and efficacy beliefs of IBMYP teachers who serve a specific group (for example, at-risk, African American, or Hispanic) may be replicated with a larger population.

Recommendation 3

Recommended practices for effective teaching were extracted from the following four categories of Stronge’s (2007) Model of Teacher Effectiveness: classroom management and organization, implementing instruction, monitoring student progress, and Teacher as a Person. A replication of this study comparing IBMYP teachers and exceptional education teachers would determine if there is a significant difference in instructional strategies and assessment practices.
APPENDICES
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**Overall Status:** active since 2010-03-11 14:52:25

**EDIRC Status:** exempt since 2010-03-11 14:52:25

**exempt Criteria:** 45CFR46.101.b.2

**Submitted:** 2010-02-27 22:32:51 by gchutc

**Protocol Current Year Duration:** 2010-03-11 through 2011-03-11

**Project Entire Duration:** 2010-03-11 through 2011-03-11

**Name:** Hutchings, Gregory C

**Acceptance:** accept since 2010-02-27 22:32:51

**Role:** Graduate Student

**Department:** EPPL

**Day/Work Phone:** (615) 298-8414

**Home/Evening/Emergency Phone:** (804) 502-8189

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**From compli@wm.edu 2010-02-27 22:32:51**

Original submission for protocol EDIRC-2010-02-27-6515-gchutc

**From compli@wm.edu 2010-03-11 14:52:25**

Status of protocol EDIRC-2010-02-27-6515-gchutc set to active
APPENDIX B

Dear Executive Principal,

As a doctoral student of the College of William & Mary, I’m conducting a dissertation research study on effective teaching practices and teacher efficacy beliefs of International Baccalaureate Middle Years Programme teachers in an urban school district. Specifically, I will examine teaching practices and efficacy beliefs of IBMYP and traditional middle school teachers.

This research study has been approved by the Metropolitan Nashville Public Schools' Assessment and Evaluation office and the College of William & Mary. I would like to conduct (1) 50-60 minute observation on 10 randomly selected teachers in your school and record their teaching behaviors using a Teacher Effectiveness Behavior Scale. Additionally, I would like for the randomly selected teachers to complete a 24-item questionnaire on Teachers’ Sense of Efficacy to evaluate your perception of your capability to affect student engagement, instructional practices, and classroom management using an online survey. Completion of the survey should take teacher participants no more than 15 minutes.

All information obtained from this study will be presented in an anonymous manner. The names of the teachers selected, school, and school district will not be disclosed. Furthermore, your school’s participation in this study is voluntary. If you choose for your school to not participate, please be sure to check the box at the bottom of this letter.

I would like to thank you for your consideration in having your school to participate in this study. If you choose to allow your school to participate, your contribution to education will be greatly appreciated! If there are any questions, please do not hesitate to contact me via phone at (615) 298-8414 or email at Gregory.Hutchings@mnps.org.

Sincerely,

Gregory C. Hutchings, Jr.
Doctoral Student, The College of William & Mary

___ I do not choose to have my school participate in this study.
Dear Prospective Teacher Participant,

As a doctoral student of the College of William & Mary, I’m conducting a dissertation research study on effective teaching practices and teacher efficacy beliefs of International Baccalaureate Middle Years Programme teachers in an urban school district. Specifically, I will examine teaching practices and efficacy beliefs of IBMYP and traditional middle school teachers.

This research study has been approved by the district office and your school principal. I would like to conduct (1) 50-60 minute observation and record your teaching behaviors using a Teacher Effectiveness Behavior Scale. Additionally, I would like for you to complete a 24-item questionnaire on Teachers’ Sense of Efficacy to evaluate your perception of your capability to affect student engagement, instructional practices, and classroom management using an online survey. Completion of the survey should take no more than 15 minutes. Teachers will be randomly selected to participate in this research study.

All information obtained from this study will be presented in an anonymous manner. The names of the teachers selected, school, and school district will not be disclosed. If you choose to not participate in the observation or survey your name/decision will not be disclosed. Your participation in this study is voluntary. If you choose to not participate, please be sure to check the box at the bottom of this letter and you will not be subject to consequences for non-participation in this study.

I would like to thank you for your consideration of being a participant in this study. If you choose to participate, your contribution to education will be greatly appreciated! If there are any questions, please do not hesitate to contact me via phone at (615) 298-8414 or email at Gregory.Hutchings@mnps.org.

Sincerely,

Gregory C. Hutchings, Jr.
Doctoral Student, The College of William & Mary

____ I do not choose to participate in this study.
### APPENDIX D

**Responses on TSES from Traditional Teachers - Efficacy for Student Engagement**

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**Responses on TSES from IBMYP Teachers - Efficacy for Student Engagement**

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Responses on TSES from IBMYP Teachers - Efficacy for Instructional Practices

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Responses on TSES from Traditional Teachers - Efficacy for Classroom Management

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